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# THE MYSORE UNIVERSITY MAGAZINE.

MARCH 1920.

## EDITORIAL.

THE RETIREMENT OF MR. THOMAS DENHAM.—Early in January Mr. Denham left for England, leaving an unsurpassed record of service. After graduating from Queen's College, Oxford, Mr. Denham engaged in educational work, including University Extension lecturing, in England, and eventually came out to Madras as Vice-Principal of the Teachers' College, Saidapet. In 1894 he joined the staff of the Maharaja's College as Professor of History. In every corner of the State his old students remember with gratitude the work he did for them, not merely in the lecture-room but in every department of the life of the college, and indeed of the high school, which was then attached to it. For many years he maintained a particularly active and useful historical association, from the meetings of which he was never absent. From the beginning he made himself responsible for the dramatic performances of the students. These were frequently given and admirably conducted, and they linger in the memory of the Mysore people, who attended them in very large numbers. He was constantly in evidence on the tennis courts; and it is recorded that none of his students ever succeeded in defeating him. And both as professor and, later, as Principal, he was so kindly and so indefatigable as to win from everyone the profoundest respect and affection. He played a most conspicuous part in the planning of the new university, and became its first Registrar; and the efficiency and promise of its beginning are due in no small measure to his experience and his untiring toil. He was editor of the *Mysore University Magazine* from its beginning to July 1919. He spent a great deal of time upon it, and took a pride in maintaining the high standard which he had set himself. In

July 1919 he relinquished the registrarship, and his last months of service were spent on special duty—the inspection of the various university institutions with a view to a detailed report (now printed) upon the working of the university; and the preparation of a report upon the applicability to Mysore of the recommendations of the Calcutta University Commission.

Mr. Denham is greatly missed in Mysore. Not merely the university but other institutions to whose welfare he devoted himself (such as the Marimallappa's High School and the Mysore Literary Union) owe him an eagerly acknowledged debt. Still greater is the personal indebtedness of student and of friend. To him and to Mrs. Denham (who was as devoted as himself to the interests of his students) we wish the greatest happiness. Mr. Denham will never content himself with a contemplative leisure, and perhaps the best wish we can offer him is that he may find a fitting sphere for the energy that remains undiminished after so many years of strenuous and unselfish labour in Mysore.

**WOMAN, THE SERVANT.**—We have just come across the following words, contained in an educational note from the pen of one of the greatest Indian writers of the day. They are valuable words, for they give bold and precise expression to a profoundly mistaken idea which means death to any scheme for the education of women in India. “Of Nature’s endowments to man the most valuable is his ‘individuality.’ Its preservation and development is one of humanity’s foremost concerns. This work can be done best only by woman. She must, therefore, be first trained for discharging the great duty of rearing up the real man of the future. And her studies must be subordinated to this end.”—A statement so explicit compels one’s gratitude, for it shows us where we stand. That this principle underlay much talk about women’s education was obvious enough, but that it can be deliberately formulated, scrutinised and accepted comes by way of a revelation. Let us reduce the doctrine to its simplest terms, being careful to add nothing whatever to its import. This is what it means.—*For man, the development of himself: for woman, the development of man. For man, a life of individual purpose, varying with endowment and choice: for woman, whatever be her endowment, a single task beyond choice.* And the very education that might have given resources to make such a life more bearable,—that too must be mutilated that she may the better serve her master and prepare new masters for other women. She is not a person as man is. She is instrument, not end. She is the servant

of her sons as of her lord. As for her daughters,—they are not mentioned. No wonder, if their destiny is as their mother's.

In this theory there is nothing of the innocence of early humanity, whose men, being stronger, oppressed their women in the apparent fitness of things. It is complicated, rendered the more subtle and the more hateful, by its consciousness, by its calmly philosophic justification. Once it was innocence: now it is deadly sin against humanity. With such a principle there can be no compromise. It has to be destroyed definitely, beyond recovery, if the future is to hold anything for Indian women. Those who hold it secretly must be driven to acknowledge and defend it, and then compelled to relinquish it in the light of reason. Those (and they are much more numerous) who are vaguely influenced by it must be shown that this nefarious thing is in fact the principle upon which they rely.

The one thing to realise, from which all else will follow, is that woman is an "individual" too, and that her duty to herself is not a whit less important than her duty to others or than man's duty to himself. And her full mental development matters as much to the country as to herself. She is as talented as man, and often a great deal more sensible. Often she is a great deal more sincere. In political and social matters her voice is desperately needed, and there is hardly the faintest sound of it as yet. Her place is in *every* sphere of life, and in no single sphere is it subordinate. It is unrighteousness towards her, and folly as regards the country, to handicap her by a training that relates to her motherhood and not to herself and her wider service. In mind, in body, in character, she requires precisely the same training as that which is judged best for men. And of this she is herself aware. Women never talk of themselves the nonsense that men talk of them; and every woman that has spoken of this question has met this doctrine with contempt. They know what they are capable of, a mutilated life will no longer satisfy them, and the planning of their future may well be left in their own much worthier hands.

HIGH SCHOOLS?—In a note submitted to Government, and published in full in a recent issue of *The Mysore Economic Journal*, the Inspector-General of Education deals with the question of "Technical Courses of instruction in High Schools." He finds American arguments and American precedents for the scheme which he outlines. His sole English illustration is no illustration at all, for the London trade schools, in which, of course, technical training is given, are not in any sense "high schools."

We believe there is no European precedent (there certainly is no English or Scottish precedent) for the introduction into such schools as prepare candidates for the university of courses intend to prepare for a technical vocation. But apart from the question of precedent, the proposal will not bear examination. Mr. Reddy does not intend simply that a course combining general education and vocational training shall be available for students who do not wish to go to the university. Since it will give "scope for the play of physical energy," and "variation from purely intellectual pursuit," and will induce an intelligent interest in industrial matters, it must therefore take its place in the B. Division of the S. S. L. C. course, *and be treated as one of the subjects leading up to a university course.* How vocational training can lead up to a university course is a mystery that will take some solving. It is entirely by way of a *diversion* from the main course of study. Even at present, the paucity of the student's intellectual attainments at the Entrance stage forms the greatest difficulty of the university, the great stumbling-block to its progress. If the student is to be diverted from study, in the university sense, for so great a portion of his time as is occupied by a vocational course, then—it may be stated quite definitely—he will be simply unfit for admission to an arts course. And unfortunately this vocational course will be chosen by very many; for it is human nature to choose a subject that provides relaxation instead of mental training. Further, the advantages cited amount to practically nothing. There is plenty of scope on the playing fields for physical energy, and plenty of "variation from purely intellectual pursuit" should be provided in the school's social activities, as well as in its games; while the student who, in these days, requires an industrial course to induce interest in his country's industrial progress will not be rendered a useful citizen by any such persuasion.

A high school is, by common consent, a school which on the one hand prepares pupils for a university course, and on the other hand provides the best possible training for those that cannot continue their studies further. The latter function is very important. A high school should provide an education valuable in itself and not merely as a preparation for higher studies. Thus the 1882 Commission remark, "It is believed that there is a real need in India for some course which shall fit boys for industrial or commercial pursuits, at the age when they commonly matriculate, more directly than is effected by the present system." And they make this recommendation, that "in the upper classes of high schools there be two divisions; one leading to the entrance examination of the university, the other of a more practical character intended to fit youths for commercial or non-literary pursuits."

The recommendation proved abortive, but the Sadler Commission remark,—“There can be no two opinions as to the desirability and importance of such a scheme of practical education.” Now, it may well be contended that such a training, though necessary, is not a task for a high school, but for special schools, the high school’s function being purely cultural. But even were the recommendation accepted, it is vitally different from that of the Inspector-General. It definitely separates the vocational course. This course is *not* to lead to the university. Mr. Reddy desires that it should do so. We contend that it is totally irrelevant to university studies, and will occupy a great deal of time that ought to be spent otherwise, and it is of no use for Mr. Reddy to reply that the student *need not* take the vocational subject. The point is that he *may* do so, that in the nature of things he often *will* do so, and that thereby the greatest injury will be incurred both by himself and by the university.

There is one detailed recommendation which sheds a flood of light upon the scheme.—A headmaster must be found for this hybrid institution. And what sort of headmaster? He must of course be able to look after everything, and such headmasters as we now have certainly could not do this, for they know nothing of these vocational courses. For these new things there must be adequate supervision, whatever happens to the rest of the curriculum, and for this supervision a thoroughly good man must be got. “We may perhaps have to import men from England, who had been supervising such instruction in the more important polytechnic institutes.” These men (being “imports,” and expensive) *are to be the headmasters!* Our high schools are to be run, henceforward, by supervisors of industrial training! It would be difficult to conceive that the proposal was seriously made, were it not the necessary corollary of the main scheme.

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A PROBLEM FOR THE SENATE.—It is much disputed, and is to be decided by the Senate this month, at what stage complete scientific specialisation is to begin. It is customary in India for the specialist in science (as indeed in any other subject) to begin his honour course, which is almost exclusive of other studies, after passing the Intermediate examination. In this university the corresponding stage is at the beginning of the second year. It is contended by many, and among them some of our leading professors of science, that this specialisation comes too early—that the student has not, by that time, received an adequate general education, and that his lack of *education* will prove disadvantageous

to him not merely in his life in general but even in his profession. They desire, therefore, that he should first take the ordinary degree, with its full course in English. He can then proceed with his specialised honour course. He will have secured sufficient background for it, and he will be an educated man. And indeed to this argument, in itself, there can be no reply. The educationist who desires truly to educate, and is not content with inflicting the stamp of a profession, is often regarded as a foolish idealist, and is answered with a smile in lieu of argument. Nor is he militant enough to lay about him like the men of old, as did Ascham, for example, when he delivered his sentiments thus:—"Marke all Mathematicall heades, which be onely and wholy bent to those sciences, how solitary they be themselves, how unfit to live with others, and how unapte to serve in the world." Yet this was by no means too violent a stroke. The scientific specialist who does not add general culture to his specialism is debarred from self-realisation, and is not fitted, as he might have been, for the uses of life; and that country is the poorer in which the suggested policy is pursued. The only possible reply is not a refutation of this argument but a reference to current practice and an assertion that the student is simply too poor to support so long a course. He *must*, it is said, begin earning, and even if he be generously helped from scholarship funds, that does not help his family, who have sacrificed much for him and must at the earliest possible moment receive their compensation through his earnings. It is for the Senate to debate the question whether this difficulty is insuperable. But it is all-important to remember what a loss to the man and to his State must follow an affirmative decision.

THE MOST URGENT NEED OF THE S. S. L. C. COURSE.—"We think it necessary that... some study of science should be part of the education of every pupil." "We are unanimous in thinking that it (history) should form part of the training given to all pupils in high English schools." Thus the Sadler Commission. They do not recommend that in present circumstances science and history should be compulsory subjects in the high school *examination*. But they insist that every student shall receive courses of instruction in both these subjects at school, and that no student shall be permitted to appear for the examination who is not certified to have done so. These subjects, in so far as they are studied compulsorily and not for examination, are to comprise an introduction to natural science (with instruction in elementary hygiene) and the study of both Indian history and that of the

British Empire. None of the Commission's recommendations is more salutary than this. Here is the one alteration which the high school curriculum imperatively and immediately requires. Everyone wants to tinker with that curriculum nowadays, and its greatest peril lies in the tinkering. There is not so very much wrong with it after all. What it least requires, what indeed it has most reason to dread, is adornment with hosts of fallaciously attractive optionals. But it does need one thing—deliverance from that overspecialisation that narrows the student, in knowledge and in outlook, for the term of his natural life. Give the historian a grounding in science, the scientist a grounding in history, and you will produce a better historian, a better scientist, and in each case a far better man.—And indeed the specialisation that prevails among us is scarcely less an evil in the university classes than in the schools. Could the scientific courses in the Central College be slightly modified so as to include something, even a little, in the way of instruction in history, the professors of science would, we believe, rejoice greatly. The rejoicing of the professors of English would be beyond all measure, who at present have to spend much of their time in the demonstration of historical postulates. Similarly, there is a very strong feeling that the introduction of the teaching of mathematics in the Maharaja's College is most desirable, not merely because of its special value to the student of economics, but also because of its value as discipline for all and as corrective for the humanist. Here there may be difficulties; but the suggested modification of the S. S. L. C. Course is not difficult and would be of incalculable service.

**PHYSICAL EDUCATION.**—A great effort is being made, in Mysore as in other parts of India, to improve the health and the physique of students. It is none too soon. Mr. Noehren, Adviser on Physical Instruction to the Government of Madras, remarks,—“The chest expansion of the average student in this Province, for instance, is not even two inches: chronic fevers, alimentary troubles, inability to resist colds, etc., is almost universal, and the mortality records speak for themselves. While it is true that exercise and recreation are not the only, or even the most important, features of rational life, many students do deteriorate physically and become weak and flabby because of their disinclination for robust activity.” It is not otherwise in Mysore, and Government are determined to do all that can be done to improve matters. A considerable sum has been made available for physical training in the university, and the university has endeavoured to formulate a satisfactory scheme.

One of the main ideas is that of medical inspection and supervision. It was hoped to obtain as directors of physical education men well qualified as regards both medicine and athletics—one director for Mysore and one for Bangalore. Such men, naturally, have not been found available, and, so far, we have had to separate the two functions. The medical inspection is of very great value. Besides looking after the health of the students, it provides biometric statistics hitherto unobtainable. This part of the problem is simple enough. It is the problem of physical education that is difficult.

The great danger is that of over-organising. The physical training that brings no delight is useless. Games are the province of the student himself. He may be coached, encouraged, given hints of various kinds, but a game is not a lesson. It is play. It is for pleasure. Even if we do encourage games chiefly for the physical and moral good they do, we must let nothing of this idea enter into our method. Games are to be played by those that like them, and because they like them; and they must not be systematised into duty. Compulsion would spoil the whole idea. Compulsion of the unwilling would spoil the game for the willing; and there are surely very few students who will not be glad to play if the range of games is made wide enough, by the addition, for example, of such games as Mr. Noehren has introduced, with such success, in Madras.

Further, it must be *games* for everyone, and not any deliberate system of physical culture. There will always, of course, be a few who take kindly to gymnastics, and to "exercises;" and because they take kindly to them, these few will benefit by them. To ordinary "physical drill" no one takes kindly. When thoroughly well directed, drill is good enough in its way, but only if better directed than we are ever likely to find it. It is of course current in schools. It is unattractive and monotonous—and therefore positively injurious. This is how Mr. Noehren speaks of the drill in Madras Schools:—"The Educational Department has attempted to provide physical training for all school boys by the introduction of compulsory 'drill' in all school curricula. Only those who have observed a class of bored boys submitting to this inquisitorial regulation can appreciate what a desperately monotonous and distasteful proceeding this can become. The boys respond without enthusiasm and hence lose all the benefit of spontaneous and pleasurable activity." He refers to recent efforts made to improve this, and he has devices to make even drill attractive. And indeed when games cannot be provided for, drill, if made attractive, will do as a substitute. But it almost inevitably tends towards weariness, and it is simply not worth while when there are adequate facilities for games. What we need, then, on the

physical training side of the university, is no scheme of intensive physical culture, no eurhythmic capering, no unpurposive manipulations of legs and trunks and arms. It is on the extension of our sporting activity that effort should be concentrated. The only "exercise" really worthy of the name is that obtained when the body strives to do the hard bidding of the keen competing mind.

INTER-UNIVERSITY ASSOCIATION.—Among the educational suggestions made by Sir Rabindranath Tagore at the time of his recent visit to Mysore was that "the system of exchanging professors of different universities for short periods, as in America, should be adopted." There can be no doubt that eventually such an interchange will become customary. It is the natural first step towards the closer association of the universities of India. There is no Indian university that does not, at present, pay the penalties of isolation. The standardisation of examinations is perhaps the most obvious of the advantages to be gained by mutual contact, but there are many others. Each university plods its solitary way towards perfection. The major difficulties in each case are the same; and each university is denied the guidance that might come from the experience, and the ability and energy, of the others. Closer association, for example, between Calcutta and Bombay would have made a vast difference to the system of post-graduate study in Bombay, and might perhaps have checked a certain exuberance in Calcutta. The new universities, such as our own, will suffer enormously if, in the pride of independence and innovation, they despise the wisdom and experience of the older. On the other hand, these older universities have much to gain by sympathetic contact with the new small universities, which are enabled by their smallness and their situation to adopt the unitary system and to make experiments that are of importance to every university in India.

Union in India is of prime importance to us; but we are bound also to share the wider movement for the association of the universities of the Empire, and indeed of the world. This movement, the power of which was felt even before the war, is vastly strengthened now. A congress of the universities of the Empire is to be held in London, and we have been invited to send representatives there. There is no university in the world but has much to gain by such intercourse. Even the oldest universities of England (already stirred by a Commission that actually includes a representative of Labour!) are approaching a

transformation in which the universities of other countries may well play a vital part.

Nor is the gain merely educational. Such association may do more than leagues and compacts both to promote solidarity in the Empire, and to secure the peace of mutual understanding in the world. It is interesting to note how fully its political possibilities were realised in pre-war Germany. Mr. A. N. Davis (the American who was the Kaiser's dentist) writes,—“No more subtle piece of propaganda was ever conceived than the Kaiser's plan of exchanging professors between the United States and Germany through the establishment of the Roosevelt and Harvard chairs at the University of Berlin, and corresponding chairs at Harvard and other American universities. . . It was believed that the exchange of professors would accomplish the German purpose in two ways—not only could the professors whom the Kaiser sent to America be depended upon to sow German seed in American soil, but the American professors who were sent to Berlin, it was hoped, could be so inoculated with the German view-point and atmosphere of thought that when they returned to their native land they would disseminate it among their associates and students.” The Kaiser never attended lectures by German professors, but every year he went to hear the opening lecture of the American professor. One wonders how he felt when Harvard sent a *German* professor to occupy the Harvard chair. Similarly an interchange of students was carefully fostered by Germany. Sir Henry Jones, of Glasgow University, who was a member of the recent British Universities Mission to the United States, remarked on his return,—“In the past it was the custom of Germany to send especially her more advanced university students over to America for the Ph.D. degree, and that custom was fostered because the Germans favoured the probability that American students visiting Germany in return would be animated by German conceptions. . . Germany's plan was by no means unsuccessful; both by infiltration and by direct action in Germany the national ideas obtained a very considerable hold upon the American mind.”

By the Germans, then, association between their own universities and those of other countries was found to be a most potent force, to be used for their selfish national ends. It is now our part to foster inter-university association, for the good of the world. The first-fruits, however, will be educational. All the great countries of the world will provide both examples and warnings. It may be that, at present, we in Mysore

have most to learn from the provincial universities of England, and from the universities of Scotland. America, however, is replete with good as well as with evil innovations. In this case there is a certain tendency in India to admire the evil with the good. One has to be extremely cautious in one's acceptance of American educational ideas and practice. But no caution can deny that in many matters pertaining to university life and work America points the way not merely for Indian but for British universities. Hitherto there has been an extraordinary lack of communication between Britain and America in this regard. Professor Jones declares, "As we know little about American universities other than the older institutions like Harvard, Yale and Princeton, they know very little about us apart from Oxford or Cambridge." Both British and American committees have now been formed, and will no doubt help to develop mutual knowledge. But each university must be its own interpreter, and must preserve its distinctive characteristics. Association must never mean uniformity.

Upon some of the features of American university life Professor Jones makes special comment. There is, for example, "the multiplicity of professors" (in Harvard there are forty Professors of English Literature), which, while there is danger of its narrowing the teacher's range, has many advantages for the advanced student. Again, "the libraries in some of the American universities, new as they are, are much larger than our own here.\* Facilities for quiet study are far greater. In one at least of the colleges we visited the library was open all night." In certain of the State universities, if not in all, education is entirely free. "The two chief features in American university life," he says, are "the growing belief in the practical value of the universities and the munificence of well-to-do students." But perhaps, to us, the most interesting of his "disclosures" is that concerning the social life of the American students. "In most cases the universities are residential, and the residences in many cases—I do not know whether they are so in all cases—are run by the students themselves. The students govern themselves, and self-government can be fuller as well as fairer than government from above. The men group themselves into Fraternities and the women into Sororities which control magnificent buildings of their own. They develop a corporate spirit, a sense of responsibility, and encourage a loyalty and, on the part of the wealthier students, a munificence which make for the good of the university." These, of course, are but impressions, but they sufficiently suggest a healthy and vigorous type of university which may have as much to teach the older types as to

\* In Glasgow.

learn from them. Professor Jones suggests, as one means of fostering association, the spending in a foreign university of the time between taking the B.A. and taking a subsequent degree.

AN interesting glimpse of life in an American University is given by a copy which we have received of the *Carleton College News Bulletin* (Northfield, Minnesota), a students' magazine like unto, yet strangely different from, such as we know in Britain and in India. We read of strange matters—not merely a "department of Sociology" (for that we were well prepared), but departments of "Biography," "Public Speaking," and "Domestic Science and Home Economics." Let the Department of Biography explain itself.

"*Great Personalities of Antiquity*.—This is the first of a series of three-hour courses on the great men and women of history. It will be followed in the next semester by a course on the leading men of modern times. The men considered in this course are chosen from the following list: David, Confucius, Aeschylus, Jeremiah, Socrates, Plato, Buddha, Alexander, Caesar, Augustus Caesar, Jesus, Paul, Marcus Aurelius. The object of the course is an inquiry into the grounds of human greatness . . . —MR. VERNON."

Our abashed comment must simply be—how American! We take off our hats to the omniscient Mr. Vernon. This department of biography is, of course, what we have styled a "warning"—the idea is a mere travesty of education. But that cannot be said of most of the ideas we find here, though one is more startling than another. We go on to read of assistant professors of "physical education for women," and "rhetoric and journalism" (both these are women), and of a Director of College Promotion Work (this appears to mean advertising the College), and of a Conservatory of Music, which maintains, among other people, an "Instructor in Voice." There are a choir, a glee-club, an orchestra and—a band!—Four pages, uncompromisingly headed "Personals," give curiously varied information as to the life adventures of various old students from the year 1891 onwards. And under the heading "Campus Improvements," one enviable sentence catches the eye,—"The Campus has been made more beautiful with flowers and shrubbery, especially around the lakes." Then comes the little American touch, "About three car loads of flowers and shrubs have been laid out."

The paper fascinates one. Amid much that is naive and amusing, both in idea and in phrase, one is conscious that these people really have understood what a university must be, and that they strain every nerve

to realise their ideal. We shall never have a "department of Biography," never appoint a director of advertising, never measure beauty by cartloads, just as we shall never speak of "freshman women." But anyone can see that, both on the academic and on the social side, such colleges have hints for us as for the older universities of the world.

NO MORE FAIRY-TALES.—Dr. Chinnappa's review-article in this issue will be read with much interest. To one theory which he mentions—a Montessorian theory, and widely current nowadays—we would offer the most vigorous opposition. It is the idea that the stories told to children should be limited by hard facts as we know them, that the land of myth and "faery" is not fit for children and their love for it is evil. When we tell a fairy-tale to children, we are telling them lies and fostering credulity; and grown-up men are credulous fools because in childhood their unwise parents thus deluded them. The tales told to children must be "true," and they ought to possess a "high moral value." No beanstalk ever rose into the clouds, and, if it had, Jack's climbing it would teach the little child no heavenward aspiration; and the slaughter of innumerable giants is not merely absurd for a youth so young and charming, but a sadly repulsive thing. Far better tell the infant about the greedy boy and his heaven-sent agonies, and if romance be required let it be that of the mine, the factory, the aeroplane.

What is at the bottom of this is just a couple of rather unfortunate misunderstandings—first, a very ancient misunderstanding as to the nature of "truth," and second, an exceedingly modern misunderstanding as to what goes on in the mind of a child. As to the former, perhaps it is sufficient to ask each other,—"When you grew up, and realised that fairy stories 'never happened,' did you sustain a shock; and do you now consider that those stories were *untrue*?" Surely we shall agree in replying that those tales, which we remember so vividly and with such inexplicable happiness, were the truest things we have ever heard.—And as to the second misunderstanding, can it seriously be stated that the child conceives as literal fact the fairy stories that it hears, and those others which it is constantly *making for itself*? It never thinks of fact or no-fact. It is concerned with pictures and exciting deeds. There is no delusion whatever, for the question of actuality does not arise. There is *illusion*, of precisely the same kind (though more vivid) as that enjoyed by the grown-up when he sees *A Midsummer Night's Dream* or the witch scenes in *Macbeth*. Cannot even the most darkened

"child-psychologist" remember the world to which the words "Once upon a time" transported him? And was it this world of common day? And—we press for an answer based on real personal experience—is he the more apt to be imposed upon now by that which is *false to fact* because in those early days he accepted that which had nothing to do with fact and was utterly true to imagination?

Some people who will not assert that art is false and harmful, nevertheless imply, by their attitude and by their total neglect of it, that it is "useless," and its pursuit a waste of time. And similarly it is contended that the time of children should be occupied in more profitable ways than that of listening to fairy-stories. Stories must be told them,—but they should have practical value.—It is just the old quarrel as to the value of art, and the culture of imagination, and the relative importance of *knowledge* and *development*. The fairy story is for that part of the child which will eventually respond to poetry—and this is its finer, its immortal part. Restrict imagination to the sphere of the practical and the deliberately moral and you destroy it.—And nature is not, after all, so very dangerous a guide. Nobody, of course, has ever *abjured* Nature. Her blasphemers have always professed themselves her devoted, though discriminating, servants. Pope's acclamation of her was as emphatic as Wordsworth's. "Nature," says the Montessorian, "has indeed dowered the child with imagination, and with imagination of a kind that delights in fairy-land. We must secure the true intent of Nature. We must divert this faculty, and direct it aright." But no—it "will not be commanded;" it knows and seeks its own sphere. Here is no place for "discipline," for Nature's wisdom in this regard is attested by the creative literature of all ages.

**EXTENSION LECTURES for Teachers.**—It is interesting to note the development of the Extension Lecture idea in England. Lectures are now given at Whitehall for the benefit of *civil servants*, a typical course being one on "The Making of Modern Europe."—Again, an attempt is being made to deepen the scientific understanding of *teachers of science* in London by holding special classes for them in Toynbee Hall. The teachers in our own high schools would no doubt welcome such courses, whether in science or in other subjects; and if lectures to them by professors of the University could be arranged the teachers would certainly appreciate, and profit by, such contact with the University. It has often been felt desirable that some sort of friendly guidance and assistance should be given by the University to those who, preparing

students for the University, have little opportunity of studying the question how this preparatory work can best be adapted to its end. The Board of Studies in English has prepared a memorandum of detailed suggestions, but really efficient help can be rendered only by personal discussion. Cannot this be arranged? Probably it would be difficult for the teachers, who are exceedingly busy men, to attend courses during term-time; but perhaps vacation courses might be held. Between the schools and the University there is a great gulf fixed. Many of the teachers are men of exceptional ability and culture, men of academic temper and attainments; and it would be a very great service both to them and to their work to lift them for a time out of that school-routine which tends to sterilise their powers.

## CHANIKYA AND MACHIAVELLI.

THE distinguished writer of the Oxford History of India says that the theory of politics expounded in Chanikya's Arthasastra is substantially identical with that of the *Prince* the epoch-making book of Machiavelli. Mr. Manmatha Nath Dutt in the introduction to his English translation of Kamandikiya's Nitisara speaks of Chanikya as the Machiavel of India. Now it is impossible to deny that there are many things in the Arthasastra which do offend the unsophisticated moral consciousness. It would, however, be misleading and unfair to speak without qualification of the "Machiavellian precepts of the Arthasastra" (*See the London Times Literary Supplement of August 1, 1919*). At any rate there are two vital differences between the Arthasastra and the *Prince*. The former, though it incidentally has much to say on state-craft, is primarily a treatise on Government. It deals, among other things, with the administration of justice, courts of law, forms of revenue, and local government. The *Prince* on the other hand, treats mainly of state-craft. The preservation of the state, and not its analysis, is its one theme. Again, in spite of all his defects, Chanikya has the merit of recognizing the moral purpose served by the state, the maintenance of the social order. No such ideal purpose was present to the cool and scientific mind of Machiavelli, when he sat down to sketch the conditions necessary to the success of an absolute ruler. As Symonds says, "Machiavelli was the first in modern times to formulate a theory of Government in which the interests of the ruler are alone regarded, which assumes a separation between state-craft and morality, which recognizes force and fraud among the legitimate means of attaining high political ends, which makes success alone the test of conduct and which presupposes the corruption, venality and baseness of mankind at large."

No theologian, perhaps, ever clung more tenaciously to the doctrine of the original depravity of man than the Florentine thinker. The terrible experiences of his time and his own personal sufferings—he was imprisoned and tortured four times on the rack for an offence of which he was entirely innocent—undoubtedly left the deepest impression on

him. "It may be said of men in general," he says, "that they are ungrateful, voluble, dissemblers, anxious to avoid danger, and covetous of gain; as long as you benefit them, they are entirely yours; they offer you their blood, their goods, and their children, as I have before said, when the necessity is remote, but when it approaches, they revolt." "Love is held by a chain of obligation which, men being selfish, is broken whenever it serves their purposes." Again, "men forget more easily the death of their father than the loss of their patrimony." This depressing philosophy of human life has its sequel in an equally depressing philosophy of politics. A ruler who proposes to act according to a perfect standard of goodness in a world where bad men predominate, will surely bring ruin on himself. He may pretend to be just, and merciful and generous, but when time and occasion require it, he must be prepared to throw such considerations to the winds and unhesitatingly use force, fraud, and even violence, to compass his ends. In the last resort, physical force alone is the sovereign remedy. All unarmed prophets like Savonarola have invariably come to grief when the people ceased to believe in them. It is only armed prophets who prevail in the end. Finally, the example of Caesar Borgia, stained by atrocities of the worst description, is held up for imitation. "If all the achievements of the Duke are considered," Machiavelli says, "it will be found that he built up a great substructure for his future power; nor do I know what precepts I could furnish to a prince in his commencement better than such as are to be derived from his example." Machiavelli's views were shaped in his mind partly by what he saw of the political condition of Italy when he wrote his book, partly by his study of the past. He became convinced that his country, torn by internal factions, with French and Spanish invaders on her sacred soil, required the intervention of a ruler of strong arm and inflexible will to free her from the foreign yoke, and impose unity within. And it is written in the histories of Livy, Machiavelli's favourite author, that when the entire safety of the country is at stake, no consideration of what is just or unjust, merciful or cruel, praiseworthy or shameful, must intervene, and that on the contrary, every other consideration being set aside, that course alone must be taken which preserves the existence of the country and maintains its liberty. "Had he (Machiavelli) at any period of his life," says Symonds, "made as profound a study of Plato's dialogues as he made of Livy's Histories, we cannot but feel that his theories both of Government and state-craft might have been more concordant with a sane, normal humanity." (*Renaissance in Italy*, Vol. I, page 224.)

No one would ever dream of comparing a practical politician like Chanikya with Plato, the law-giver, as he has been justly called, to all subsequent idealists. But the fact remains that Chanikya recognizes no less than Plato that the state is a moral institution. It will be remembered that in his picture of the ideal state Plato provides for three classes of people, the statesmen, the warriors, and the artisans and labourers. It is the duty of the first class to make laws and govern the state in accordance with these laws; of the second to defend the state from its enemies both within and without; and of the third to provide for the economic needs of the community. And lastly, justice is the principle of harmony which prevails in the state, as a result of each class attending to its own duties and forbearing to meddle with the duties of the other two. In the words of Ernest Barker, "its essence lies in a view of the individual as no isolated self, but part of an order—as not intended to pursue the pleasures of that isolated self, but to fill an appointed place in the order." It need hardly be pointed out how closely this conception of justice corresponds with the Hindu idea of Dharma, which, in its ordinary sense, may be defined as the duty prescribed to an individual by his station in the social order. Now Chanikya lays it down as a fundamental rule that the maintenance of the Dharma is the primary duty of the prince. "The King shall never allow people to swerve from their appointed duties (Dharma), for whoever upholds his own duty, adheres to the usages of the Aryas, and follows the duties of the (four) castes and orders (Varnasrama Dharma), will attain happiness in this world as well as in the next." In virtue of his power to maintain Dharma, the king is the fountain of justice, and the ruler who fails to uphold it wields his sceptre in vain. It will be observed that Chanikya uses the word Dharma in its conventional sense. The higher conception of Dharma as the disinterested life of active duty, which finds such noble expression in one great ethical treatise, the Bhagavatgita was apparently not within his reach.

Chanikya is not a moral philosopher but a practical statesman, and he has all the qualities of that type,—sagacity, grip of facts, insight into the motives of men, and a tendency to subordinate ethical considerations to the needs of the state. While, however, we need not hesitate to point out his defects, we should not forget in how much he stands for morality and right dealing. Bharadvaja, a previous political writer who is frequently cited, says that when a king dies in a foreign land, his minister may set up the princes and other members of the royal family against one another and after removing them out of the way, may himself ascend the vacant throne. Chanikya denounces this cynical

advice as opposed both to righteousness and to accepted rule, and with quiet humour advises the minister who is not satisfied with his position to go to a forest and spend his time there in performing long sacrifices.

Chanikya's treatment of the kingly office and its duty is all that could be desired. According to him, ignorance and absence of discipline are the root causes of all our troubles. The king, therefore, should be well educated and trained to control his senses. He should be brave, truthful and virtuous, free from passion, greed and hatred, prompt in carrying out his designs, and enthusiastic in the discharge of his duties. He should have dignity and forethought. He should be a man of large aims and should not hesitate to seek the advice of competent counsellors in all matters of difficulty. As no single individual, however able, can expect to carry on unaided the whole work of administration, he should secure the co-operation of a body of ministers of proved merit and upright character.

The primary duties of the king consist in the maintenance of Dharma and the protection of his subjects. This duty of protection is used in a very comprehensive sense, in the Arthashastra. As a competent scholar (Prof. K. V. Rangaswami Iyengar) has well pointed out, it covers the work of the departments of what we should now call civil and criminal justice, legislation, public works, the church, education, poor and medical relief. It will be sufficient here to note that, according to Chanikya, the King, among his other duties, should promote agriculture, encourage commerce, construct roads and irrigation works, and carry on mining operations. He should provide maintenance for the orphans, the old and the infirm, and afflicted persons. He should provide food, clothing and quarters for helpless women who are in the carrying state, and Chanikya even declares that all such persons as turn a deaf ear to the claims of their relations and slaves shall be taught their duty by the state.

Chanikya's remarks on peace are sensible and just. When the advantages to be derived from going to war are of a dubious character the prince should prefer to remain at peace, for loss of power and wealth are incidental to war and Chanikya is careful to add *sin* to the list of the evils of war. His teacher remarks that peace depending on honesty or oath is mutable whereas peace with adequate securities is immutable. Chanikya, who never quotes a previous writer except to differ from him, retorts by saying that peace depending on honesty or oath is immutable both in this and in the next world.

We can find space here only for one more instance in which Chanikya stands up for right as against might. It relates to the restoration

of peace in a conquered country. The relevant passages are translated by Dr. Pramathanath Banerjee in his book *The Public Administration of Ancient India*. "A conquered country should be given complete security so that the people may sleep without fear. If the people rise in rebellion they should be pacified by rewards and remission of taxes." "He (the King) should cover up faults of the enemy by his own virtues, and exceed the enemy's virtues, by himself showing double the amount. He should please the people by properly observing his own duties, by remitting taxes, and by bestowing on them rewards and honours. He should undertake measures which contribute to the general welfare and prosperity... He should adopt the manners, customs, dress and language of the conquered people and show respect to their national, religious, and social ceremonies and festivals. . . . He should hold the sages of the country in high esteem, and honour the learned men, the renowned orators, the religious leaders, and the heroes, by gifts of land and wealth, and by remission of taxes. He should release all prisoners and help the needy, the friendless and the afflicted. . . . After prohibiting customs which may appear unrighteous, or injurious to the state revenue or to an efficient system of administration, he should establish righteous laws and customs."

Above all, there is the lofty ideal which the king is exhorted to keep always before him. He should seek his happiness in the happiness of his subjects, and his welfare in their welfare. His good is not what pleases himself but what pleases his subjects. Readiness in action is his religious vow, the satisfactory discharge of his duties is his performance of sacrifice, equal attention to all is his offer of fees and ablution towards consecration.

N. NARASIMHA MOORTY.

## THE TEMPLES OF MYSORE.

THE Mysore Government Press and Mr. Narasimhachar deserve to be congratulated most heartily upon the excellent monographs on the gems of architecture which Mysore is fortunate enough to possess and to preserve. We look forward to the others in the series with renewed interest. Time was when the iconoclastic zeal of foreign invaders now and again found its parallel in the attempts of over-enthusiastic officers eager to oblige in the removal of some fine images to other places. It is to these vandalistic acts that we owe in some measure the uncouth renovation of the twice-removed Kedareswara at Halebid and the loss of some figures in Belur itself. These are however no longer possible for obvious reasons and it must be mentioned with gratefulness that the best specimens of the art can still be seen at Belur, Somanathapura and elsewhere.

That this type of architecture contains all that is wild in human faith or warm in human feeling, that the alpha to omega of architectural design is portrayed on the walls of the Hoysala temples, that every part and effort is calculated with mathematical exactness, and executed with a mechanical precision that never was equalled, and that there is an exuberance of fancy which scorns every mechanical restraint, does not require any detailed reference here. It is not the purpose of this review to invite the attention of the reader so much to these matters as to point out that the author, in his very laudable endeavour to describe the temples at Belur and Somanathapur, has, perhaps necessarily, contented himself with styling this specimen of architecture as "Hoysala" without going deeper into the question. It may no doubt be contended that this reviewer is precluded from questioning the appropriateness of the title, inasmuch as in his papers contributed to the *Mysore University Magazine* and the *Journal of the Mythic Society* he has stated that what was so far known as the Chalukyan style in Mysore should for the reasons therein mentioned be thereafter given a separate name and a niche be erected for the style "Hoysala" in the fane of Indian architecture. Indeed it is not now suggested that those splendid monuments of the Hoysala dynasty, bearing their awe-inspiring crests, should not be

famous, as they deservedly have been, as the precious gems of the Hoysala art. But what is required of the interested students of Indian architecture is a spirit of restlessness, as it were, and a desire to go behind the outward manifestations of things and put to themselves the question,—“ What are the temples for, why and how came they to be where they are, and what was the occasion for so much piety and such an expenditure of human labour and human intelligence on these shrines ? ” How much would we not have given, if Mr. Narasimhachar, with that thoroughness which he brings to bear upon the subjects of his study, had grappled with these topics and treated us to a short dissertation on the essential conceptions and the basic principles of temple construction ! It is not possible at this moment to think of another scholar so well equipped for this task as he. One would wish that the psychology underlying the Aryan modes of expression with particular reference to the springs of human conduct and human action, in the growth and development of civilisation, which is naturally and, with us, necessarily, reflected to a certain degree in architecture, had been unravelled by the illustrious author ! For Mr. Havell has revealed the incongruity of an arbitrary classification in architecture into several styles and a grouping of structures under one or the other heading. The same craftsmen are responsible for the structures of the so-called varieties of styles of architecture, and the same basic principles underlie the Indo-Aryan village plan. If this statement is correct, what is the principle underlying the Indo-Aryan village plan ?

“ The planning of the village and the religious symbolism connected with it were reproduced in the enclosure of the Hindu temples of mediaeval and modern times. The typical form, probably derived from the fortified camp of the first Aryan invaders, was a rectangular enclosure with the four sides facing the four quarters, —and divided into four wards by two main streets which crossed each other in the centre and were terminated at each end by the four principal gates. The subsidiary gates near the corners completed the eight-fold path. The longest street, East to West, was Rajapatha, and the shorter, North to South, was Mahakala. The temple was in the centre.

“ Just as the aim of the Vedic philosophy was to discover the secret laws of the universe and to found thereon a religion of every-day life, so the Indo-Aryan village was conceived as a microcosm, the ‘ five peoples ’ of the Aryan Community representing the five elements of the universe and each quarter of the village symbolising a corresponding division of the macrocosm. The public celebration of the sacrificial rites to the deities (devas) who presided over the different quarters of

the universe had its appointed place in the quarters of the village dedicated to these deities, and thus each temple had its appropriate site fixed according to the aspect of the divine power which was to be worshipped."

The sites of villages were carefully chosen according to principles, ritualistic and sanitary. They were generally on the bank of a river, by the sea-shore, or by the side of a lake, to provide for the religious rite of the bath. The soil of the proposed site was examined to ascertain whether it was cultivable and could provide good drinking water. When that was decided on and the blessing of the gods had been invoked in the presence of the assembled people, the ground was ploughed over. The master-builder oriented the village boundaries by means of the shadow of a gnomon, fixed the position of the gateways, and laid out the two main streets in the form of the cosmic cross. Then, squaring out the whole area into the mystic figure called Paramasayika, he determined the auspicious sites for shrines, orchards, reservoirs, wells, and blocks of houses, and the lay-out of the streets according to the special needs of various social grades and the nature of the ground. The antiquity of the science of Indian Town Planning will become evident from this close connection of the geometrical system with Vedic sacrificial lore and from the fact of the master-builder occupying the position of the high priest. It may also be recollect that the lay-out of the Indo-Aryan village is treated in the Silpa Sastras as the preparation of the sacrificial ground. If the three aspects of Hindu worship of the Ishta, Griha and Gramya Devatas correspond to the ancient tradition of Vedic sacrifices in which the Aryan paterfamilias had a treble religious duty to perform towards his god, family and clan, and if the Sandhya also belongs to the immemorial traditions of Aryan religion in which the Sun was worshipped as the symbol of the Unknown Power in the universe, then it follows that this tradition grew up with the organization of the Aryan village in which the Mangalavithi or path surrounding the village was consecrated for the performance of the rite of Pradakshina, symbolising the path of the sun across the heavens or the turning of the wheel of life and death. Of the four principal-gates of the village, the Eastern gate was dedicated to Brahma and represented the rising sun ; the Southern to Indra, symbolising the sun at noon ; the Western to the setting sun or Yama ; and the Northern to the War-god Senapathi. "The Upanishads shaped this primitive nature symbolism into definite philosophic concepts, and Vishnu-Surya, the 'All-pervading,' then took the place of Indra at the zenith, Siva appropriated the attributes of Yama and his position in the Western sky, while the

concept of the cosmic Slumber, under the name of Vishnu Narayana, took the place of the War-god at the nadir." As we know, it was upon this rite of the cosmic cross or the wheel of life that the Buddha based his doctrine of the Aryan Eight-fold Path—the new way of life which would release mankind from suffering. This symbol is embodied in the plan of the Indo-Aryan village and temple, and contains the four fundamental concepts, upon which all Hindu religious cults have been built.\*

From this short description it will appear that there is some similarity between the plan of the village and the temple and this agreement may be explained. One other question to which one would very much have liked Mr. Narasimhachar to have addressed himself, suggests itself to us. Some of our readers may remember one or two lectures delivered by the late Swamigalavaru of Sivaganga on temple-construction over a decade ago. In these thought-provoking lectures he is said to have mentioned that the true temple ought to conform to the proportions of the human body. The innermost sanctuary was the head, the sunasika or sukhanasi was the neck and trunk, the navaranga or the central hall was the heart or the abdominal regions, the aisles corresponded to the arms, the dwajasthamba to the genital organ, and the entrance sides represented the lower limbs, and so on: the gopuras also have their own special import. The object of construction in this wise was said to be this: Upasana was of two kinds of which one, the Nirgunopasana (నిగుం  
తోలేపొసనే), was intended for Yatis who worshipped their own heart (సుక్షమయుజక్షనే). But there were others who had not or could not have sufficient power of self-control or concentration of self, and the essence of all worship being purification of oneself (Chittasudhi), these persons who had not the materials for worship in themselves were enjoined to go to the temples which had been constructed by persons with sufficient Chittasudhi and which had been hallowed by their personal magnetism. Since it was a transfer of self to the temple, the form was the same and the sanctum sanctorum was compared to the head inasmuch as the most important and the largest number of chakras were located in the head. It is very much to be hoped that the distinguished archaeologist will enlighten the readers on these somewhat abstruse subjects in the next monograph of the series the publication of which he has so kindly undertaken.

Number 3 in the Mysore Archaeological series under architecture and sculpture in Mysore enhances the reputation of Mr. R. Narasimhachar in the world of architecture and archaeology. The splendid get-up of the work and the beautiful illustrations go to make the book indeed

\* See Havell.

very attractive. It is worthy of note that the Lakshmidevi Temple at Dodda Gaddavalli was constructed several years before the Keshava shrine at the capital. As the learned archaeologist says, it is one of the oldest temples of the Hoysala style, and the raised terrace or platform is absent from this structure. This is the only one of its kind in existence. The beautifully preserved Hoysala crest on the western side arrests our attention. The people of Mysore cannot be sufficiently grateful to Mr. Narasimhachar for his part in the national regeneration of the country.

S. SRIKANTAIYA.

## THE STUDY OF ENGLISH LITERATURE.\*

WE have rarely come across a treatise which in so small a compass packs so many valuable suggestions on the principles and method of studying literature as that of Mr. MacPherson, a new edition of which is now issued. The author is inspired by a genuine love of literature as literature and is never tired of insisting that literature is *life*, that it is *art*, and that art is, in the words of George Gissing, "an expression, satisfying and abiding, of the zest of life." At the very outset, the essential function of literature, viewed from the stand point of its subject-matter, is stated to be,—"to enlarge the scope of our ideas and sympathies, to enrich and develop our human nature, to teach us to see and appreciate rightly the varied spectacle and drama of life." And again, at the end of the book—"It is as a human study, appealing not merely to the intellect but to our whole human nature, that literature excels... To perceive the beauty of literature, or of any work of art, is implicitly to increase our sympathy with, and reverence for, humanity, is to be drawn closer to, and united with, other men. The study of literature is, therefore, in the most literal sense of the word, a *humane* study, and it may be claimed that, regarded thus, as one of 'the humanities,' it stands *facile princeps* among all the subjects of the school curriculum." Holding this liberal view of the nature and function of literature, the writer addresses himself to the question of the proper method of studying it. He is specially thinking of teachers and pupils in "secondary and continuation Schools"—our collegiate high schools we may say—and his chief aim is "to show how English Literature, as it appears in the work of the best writers, may be effectively studied and rightly appreciated."

The first six chapters contain the kernel of the book: they formed in fact the whole book as it appeared in the first edition. With the principles of study set forth in this part we are in thorough agreement. We are first treated to the "logical" and the "psychological" basis of literary study—in other words, what the teacher should know on his

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\* *The Study of English Literature*, by William MacPherson, M.A., Cambridge University Press, 5/- net.

subject, and, what is more important, how he should get his pupils to assimilate that knowledge. Then, in chapter II, we have the general method—to read the book rapidly and get a view of the whole: dwelling as we go along on the subject-matter or content, the form or structure, the style, and the imaginative atmosphere of the work. The author, we are glad to note, has a hearty dislike of annotated editions; he does not want an English classic, like Hamlet's marriage tables, “coldly furnished forth” with stale fragments of grammatical and philological information. And he does not approve of a slow and fragmentary detailed study of passage after passage in the text. “The mode of reading books in school should not be absolutely divorced from the mode in which books are read out of school.” The teacher, then, must read the book rapidly and read it expressively—for he is assumed to have cultivated the art of reading aloud—and direct the attention of the pupils to whatever bears on the content, form and atmosphere of the work, and to those things only.

The content or subject-matter of a literary work is living reality, “some aspect or aspects of the universe which will appeal to the reader as being real and vital.” Under Form are included structure and style. The structure, though it differs in different kinds of literature, is in essence the same—“the suitable adaptation of means to an end;” the artistic purpose of the writer moulding the work as a whole and in each of its parts. The style follows the same law; it also is moulded by the subject matter. “In the highest literature the word and the idea are fused and united with absolute justice; the right word, the happy phrase, is struck out in the mind of the writer as a spark of fire is struck from a flint.” The third element in literature is its atmosphere—the product of the artist's temperament and all his experience brought to bear on the subject-matter. Here again, though there is an infinite variety depending on the personality of each writer and the possibilities of each subject, the general essence of it is always the same: “like the essential principle underlying the outward form of literature, it too consists in the adaptation of means to an end, worked out here in obedience to a fine sense of aesthetic fitness and harmony.” Thus, “the three aspects of literature as a subject of study—its content, its form, and its appeal to the imagination—must always be considered as being in close and necessary relation to one another.”

Having indicated the main line of approach, the study of the work of art as an organic whole, the author next applies his principles, in successive chapters, to the study of different forms of literature—Fiction, the Essay, Lyric Poetry, Drama and Narrative Poetry. These

chapters contain some useful hints for class-teaching, but we are already confronted here with the spirit of specialisation which seems to have dictated the latter half of the book, the newly added matter in this second and enlarged edition. In these new chapters, we have a plea for recognising speeches as literature, and for cultivating the art of reading to convey our literary appreciation. There are, further, suggestions for studying the "descriptive touch and imagery" in literature and for selecting text-books and planning courses of study for elementary and advanced stages. For instance, in framing the course, we are told to consult the principle of Variety and Interest, the principle of Thoroughness, the principle of Correlation (literature having obvious natural affinities with composition and history), and last, but not always, the principle of Chronology. Authors may also be chosen with a view to comparison and contrast, and translations of foreign classics need not be ignored.

Throughout this second half of the book, and even in places in the first half, we are afraid that the author is making concessions, however reluctantly, to the specialist and *his* method of studying literature. Needless to say, a good teacher knows a great many things about his subject which he does not put before his class at all; or he knows how to bring comments and explanations, matters of biography and literary history, critical principles and opinions, into relation with the human and personal interests of the artist's work. But the more these matters are obtruded on the class in set and formal lessons as so much "learning" that they ought to carry in their head, the more they are in danger of losing touch with the moral truth and human passion which the great authors know how to put into their subject with largeness, sanity and beauty. Perhaps we are onesided, but we have suffered under such treatment and we frankly confess that we do not at all believe in these attempts at compromise between two mutually destructive methods of study. A second reading of the text to drive the impressions home and consolidate results is of course quite as essential as the first general reading, but to devote this second reading to detailed and intensive study of linguistic details and metrical peculiarities, or to hold up the work of the master as model and hints for the essay-writing of the pupil, is merely to obliterate the good effects of the first reading and to make the pupil hate as a text-book the book which he had come to love as the voice of an inspired soul. To go still further, and to recommend, as the author recommends, for class-work and home-work, purely formal and mechanical written exercises; tabular statements of analysis with chapter and verse; collection of obsolete words, figures of

speech, and grammatical or metrical peculiarities; writing of notes on paragraph-structure and special features of style; phonetic study of melody and rhythm, vowel and consonant music, alliteration and assonance; supplying ellipsis or completing similes in descriptive passages taken from great writers—to try in short, as we are told we ought to try, "to take out of literature all that the study of it is able to give," is to set the student to grind the mill of "discipline" for a little, a very little flour with which to feed his hungry spirit.

And we must remember that all this "intensive" study is to benefit the pupil at the high school stage. And we have a strong suspicion that the author no more believes in all this formidable dry-as-dust discipline than we do. Again and again, in the midst of his analytical apparatus, he becomes apologetic. In one place, he warns us that "in classes of younger pupils the discussion of linguistic or literary details should be avoided." In another place, "Intensive study of literature is very often pernicious—as a rule, the younger our pupils the less detailed should be our treatment and in many cases we ought to rely on expressive reading alone." And again, "It has been thought well to err in the direction of over-fulness rather than paucity of suggestion, since the greater the number of suggestions, the greater is the probability that some at least may meet with the reader's approval." But the result of this multiplicity of suggestions is to mislead the teacher of young boys. He will be afraid of being considered "superficial" and hasten to become "thorough." So he begins to spell culture in the German manner, and fraternises with the enemy. So in his hands the study of literature is to be liberal *and* special, literary *and* scientific—both a drudgery and a delight. But can it? We have it on sound authority that no man can serve two masters; for either he will hate the one and love the other, or else he will hold to the one and despise the other. And we want to hold to and love literature as inspiration and joy, not as tabulation and research. That does not mean elegant trifling, for intellectual discipline is surely added to one who seeks first a liberal study. And the training of the intellect comes in at so many doors—and surely we might leave something for the teacher of the optional subjects and sciences to do? And something to God?

Specifically mischievous is the insistence of detailed study in this country. The Indian student has so many interests to cultivate, and English Language and Literature, though one of the most important, is, after all, one. He wants to learn to speak and write English and assimilate the great ideas and national spirit embodied in English

Literature. And he cannot drudge at English. He is set some books for detailed study and some for non-detailed ; and he wonders what the distinction exactly is. And he can never understand what is demanded of him by that mysterious order, "Annotate." In the class, he finds that bit by bit the text-book is read through and explained, takes notes and remembers—or forgets. He does not make, or is not taught to make, any effort to take a broad and intelligent view, to relate the matter of the text to the life of the past or the present, to grasp the work as a whole in its artistic embodiment or literary workmanship. I am not thinking so much of delicacies of style and form as of the general design, the main aim and the spirit of the writer. I wonder whether by making this distinction between detailed and non-detailed study, we are not encouraging a too painful and a too careless reading of books ; in either case missing the golden mean of an intelligent and liberal study in touch with general life and culture.

B. M. SRIKANTIA

## DR. MARSHALL ON INDUSTRY AND TRADE.\*

IN the preface to the fifth edition (1907) of his *Principles*, Professor Marshall explained that his "failure to fulfil the implicit promise, made seventeen years ago, that a second volume completing the treatise would appear within a reasonable time" was due to the plan having been laid on too large a scale and to the widening of its scope, "especially on the realistic side with every pulse of that Industrial Revolution of the present generation, which has far outdone the changes of a century ago, in both rapidity and breadth of movement." He proposed accordingly "to bring out as soon as possible an almost independent volume on National Industry and Trade," part of which was already in print. In order to have more command of his time and his limited strength, he resigned early in 1908 the Professorship of Political Economy in Cambridge which he had held since 1884 and which, as his successor and pupil Professor Pigou happily put it, he had made "illustrious with his name." His last lecture was attended by a large number of his old pupils, the senior among whom, Dr. Keynes, paid a warm tribute to the master, eliciting enthusiastic applause when he referred to the *Principles* as the greatest treatise on Economics since the time of Adam Smith. It was the general hope and expectation that Professor Marshall would be enabled to bring out at no distant date the promised supplement to his *Principles*.

But it is only in the last few months, twelve years after the book was promised (part of it had even been in type in 1904) that Dr. Marshall has been able to fulfil his promise and gratify the expectations of students of Economics. A chorus of admiration and gratitude has welcomed the appearance of his *Industry and Trade*. Its purpose is stated to be to present "an accurate picture of a part of the field of Economics and not to advocate any particular conclusions" (v); i.e. the work is dominated by "the desire of the mere student for knowledge for its own sake, and without special reference to any purpose to which it can be applied" (viii). From this point of view, the work is "concerned with the origins of modern industrial technique and business organisation; with the parts played by particular nations in

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\* *Industry and Trade*, by Dr. Alfred Marshall. Macmillan & Co., 18/-.

developing them, with the problems arising out of them" (8).\* Book I examines the factors that have led to the industrial leadership of Britain, France, Germany, and the United States. The Second book deals with the causes that have necessitated, and the factors that have rendered possible, production on a large scale. It has been found that "nearly the maximum economy of production can often be attained by a well organised business of moderate size: but that the task of marketing efficiently over a large area makes demand for almost unlimited capitalistic resources, unless it is facilitated by association with others engaged in the same industry" (511). Book III considers accordingly in great detail the structure and methods of operation of Trusts and Kartels and other capitalistic aggregations in Britain, Germany, and the United States, whose principal aim has been to control and manipulate markets.

As the work is sure to be read and re-read by all serious students of Economics, no useful purpose will be served by summarising its contents, in so far as they describe or analyse the present structure and methods of industry and trade. Dr. Marshall in this volume, however, has not confined himself to the work of the mere student desirous of knowledge for its own sake. "The hopes and fears of humanity underlie a great part of Book III," and accordingly here and elsewhere we come across many weighty and interesting judgments on current issues. Thus we are told, "in the middle of last century it was still reasonable to think of agriculture and mining as necessarily characteristic of the lower stages of industry, and of manufactures as completely possessed of the higher.....It is no longer reasonable to assume, as a matter of course, that an increase in a country's manufactures must be welcomed more heartily than other developments of her economic activity.....Not all of those characteristics of manufacture, to which its importance is owing, are of high quality. The substitution of repetition work in massive standardised production, even though it be true to a thousandth part of an inch, is not an advance, from the human point of view, over skilled handicraft: it increases man's power over matter; but it may diminish his power over himself" (683). Elsewhere we read that "in all international trade her (Britain's) great Dominions are able to take full care of their own interests: but her Crown Colonies and India are not in equally strong positions; and therefore Britain is morally bound to attach to each of their interests at least as great a weight as if it were her own. In particular no plea should be entertained for

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\* The figures in brackets refer to the pages of *Industry and Trade*.

Protective taxes on imports into Britain competitive with some of her own industries, however strong the national need for developing them may be ; unless a similar principle is applied to selected Indian manufactures, whose youthful strength is insufficient for competition on nearly even terms with rival imports from Britain and other western countries" (653).

The most interesting and characteristic of Dr. Marshall's judgments relate to the supreme value of individuality and personal initiative in national economy. "Initiative and knowledge are the most powerful implements of production" (593), and Dr. Marshall views with great misgiving the characteristic developments of recent years, giant businesses, joint stock control, and above all, what he considers ill-conceived short-cuts to social amelioration by state intrusion into industry as they all tend "to impair the supply of that individual initiative which is by far the most important element of national wealth" (594). He is impatient that "even thoughtful men are still often in some measure under the dominion of the old notions that those changes, which are general, are probably irresistible ; and that to resist them is flying in the face of nature" (175). If "capitalistic aggregations, approximating to the mechanical routine of a socialistic bureaucracy, have so far been most prominent where economic progress has been most rapid, so also have the pallid faces caused by a scarcity of fresh air and sunlight" (175).

It is interesting to note that Professor Sidgwick wrote in 1885 : "As a political Economist, I can only look on all small-scale industry as an interesting survival, which must be content to fill the crannies and crevices left by the big-scale industry." \* That is not at all Dr. Marshall's view. He is apprehensive that "a new tradition is in danger of growing up, to the effect that a small business must be out of place in the new age : for that belongs to large businesses. This tradition in its exaggerated form is repeated parrot-wise" (581-2). The real truth is that "if an old business is small, it is rather likely to be a stagnant business ; but an enterprising man, who sees his way to fitting the work of a small business into the large frame of national industry, may render as high service to the country now as ever" (583). Further as a matter of fact "the large business itself increasingly given to semi-automatic work on standardised products, is often indirectly aiding businesses in which routine has but a secondary place ; and in some directions it promotes new openings through which a man of small means but large

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\* *Henry Sidgwick, a Memoir*, p. 422.

energy may work his way up to become a leader in industry" (246). Thus "the complete command which Lancashire offers to the manufacturer of any sort of yarn that he may need gives scope to even very small men in manufacturing specialities" (231). It is also well known "that large steel firms have always supplied small cutlers with their material" (246). The conclusion is certainly warranted that though "machinery has ever been extending its domain," and "the small producer is constantly threatened with extinction," yet he not only survives but "the number of small businesses is constantly growing" (247-8). This is a matter for gratification because small businesses are "the best educators of the initiative and versatility, which are the chief sources of industrial progress" (249); and they have been "the nurseries for the brains in large businesses" (525). The experience of the war is also instructive. The fact that the Government "did not find much need for gigantic individual establishments, tends to support the opinion that standardisation, specialisation, and thorough organisation may enable a multitude of businesses of moderate size to attain nearly every important efficiency and economy that appear at first sight to belong exclusively to giant businesses" (593). It is also probable that the advance of the electrical industries will help the small factory in competition with the large factory, and the workshop in competition with the factory" (773).

"The extension of joint-stock company control over a great part of the business of all western countries" (314) is viewed with misgiving. Though the present day companies do not suffer, like the great trading companies of past centuries, from "the corruption and selfishness of their officials," these are yet likely to yield "to the temptation to consult their own ease by jogging along quietly in accustomed routes and avoiding the trouble and worry of new initiative" (324); and the result is "a tendency to ossification of the social organism" (325). The world may be saved from the untempered evils of this tendency by various influences, such as the substitution of scientific methods for empirical, intercourse of expert officials with one another, and, more than either of these, the growth of a spirit of loyalty to the business itself. Yet all these "call only for a mitigation, not for a reversal, of the judgment of English business men that the conversion of a private business into a Joint Stock Company, though occasionally inevitable and very frequently convenient to those immediately concerned, sometimes acts adversely to national prosperity and industrial leadership" (328).

State management of industry is also condemned on account of its disastrous effect on initiative and knowledge. "Governmental industries are characterised by "comatose slackness" (226). "No one would have much scope for independent initiative, and a glib tongue would be likely to give a man more prominence and influence than could often be attained by originality and energy" (177). It is not always easy to ascertain when a Government enterprise has failed. "The relations among the various Departments of a modern Government are numerous; and when a much vaunted public enterprise has turned out badly, the resulting losses can be so distributed and buried under a mass of Departmental detail, that their true history cannot be unravelled without the aid of a semi-judicial inquiry: in fact it remains obscure; and those who are responsible escape their just censure" (853).

Even when state management has not been a failure, no small part of the credit is due to private enterprise. "When private enterprise has toiled and invented and experimented and failed; and again invented, and experimented and quite succeeded, the public official enters on the scene. He endeavours to absorb the latest ideas: he brings the might of a bottomless public purse to bear on their finance; and he annexes some leaders of the new industry to carry the chief business of the technical side of the work ..... Even in the railway industry, in which Government control has some exceptional advantages, it seems to have borrowed almost every new idea from independent work" (851-2). Dr. Marshall has caustically remarked elsewhere, "when municipalities boast of their electric lighting and power works, they remind me of the man who boasted of "the genius of my Hamlet" when he had but printed a new edition of it. The carcase of municipal electric works belongs to the officials; the genius belongs to free enterprise."\* So also does the capital. "Nearly all the costly appliances for production which are now in collective ownership by national or local Governments have been bought with resources borrowed mainly from the saving of business men and other individuals."† "A modern Government seldom accumulates capital: it is a brave borrower" (648).

Dr. Marshall's position with regard to state management of industries may be summed up in his own words as follows: "Every new extension of Governmental work in branches of work which need ceaseless creation and initiative is to be regarded as *prima facie* anti-social, because it retards the growth of that knowledge and those ideas which

\* "Social Possibilities of Economic Chivalry," Economic Journal, March 1907.

† *Principles*, p. 712.

are incomparably the most important form of collective wealth..... Those improvements in method and in appliances, by which man's power over nature has been acquired in the past, are not likely to continue with even moderate vigour if free enterprise is stopped, before the human race has been brought up to a much higher general level of economic chivalry than has ever yet been attained. .... Those who believe that all the commerce of the world will ere long be carried through the air should make a few aeroplanes carry heavy cargoes against the wind before they invite us to blow up our railway bridges.” \*

It would be wrong to conclude, however, that Dr. Marshall belittles the importance of the State: “The State is the most precious of human possessions,” and “at any time and place is the chief emanation of the character of mankind then and there.” But the state which a self-governing people evolve “will reflect whatever purity of aim and nobility of purpose are to be found in their lives but no more: it is likely to be much less efficient for its purposes than they are for theirs, because its tasks are much heavier than theirs.” Therefore “it should not be set to work for which it is not specially qualified, under the conditions of time and place ” (647).

The ultimate aim of all economic work is decidedly to help “the world to turn its growing resources to the best account for social well-being.” † Therefore on the very first page of the present work, our attention is drawn to the fact that “no previous age has had such large opportunities for applying material resources in the elevation of human life. The forces of Nature are being turned back upon her to compel her to render ever larger returns to man's efforts in every branch of industry.” Not only Britain but also “every other western country can now ‡ afford to make increased sacrifices of material wealth for the purpose of raising the quality of life throughout their whole population ”(5). Dr. Marshall notes that this ability is accompanied by a “growing volume of responsible doubt as to the general sufficiency of the existing social order for the requirements of man's nature ” (658).

Care must be taken, however, that schemes of social amelioration do not dry up the springs of economic progress. Nothing must be tolerated which suppresses individual enterprise and places “a check on the utilisation of the world's store of creative faculty in the development of the material sources of well-being ” (175). For “Nature's opportunities

\* “Social Possibilities of Economic Chivalry:” op. cit.

† “Social Possibilities of Economic Chivalry:” op. cit.

‡ This passage was written before the war.

cannot long retain their present generosity; for the world is small. Science may indeed enable a fairly vigorous life to be maintained in tropical regions, which have hitherto proved fatal to high energies; but ere very many generations have passed, the limitation of agricultural and mineral resources must press heavily on the population of the world, even though its rate of increase should receive a considerable check" (2). Not only is the economic position of the western countries as a whole unstable, but there is also "no sure ground for thinking that industrial leadership will remain always with the same races, or in the same climates, as in recent times" (162). The position of Britain is specially vulnerable, because coal which "is the chief source, other than the qualities of her people, of Britain's economic strength" is rapidly disappearing. "It is said that she possesses only a fortieth part of the coal known, even now, to exist in the world" (503).

It is time to bring this long review to a close. Long as it is, full as it is of quotations from the work, the transcribing of which has been to the writer of the nature of a religious exercise, it conveys but a faint idea of the vastness of design, the masterly marshalling of facts, the penetrating analysis, the judgment and the vision that characterise the work of the master, to have sat at whose feet for two precious years is a privilege to cherish and a responsibility to realise all through one's life

N. S. SUBBA RAO.

## REDEMPTION HINDU AND CHRISTIAN.\*

WE welcome in Dr. Cave's book another addition to the Religious Quest of India Series. The object of this series is by now quite well known. In the words of the editors, Dr. J. N. Farquhar and Dr. H. D. Griswold, an attempt is made to study the religions of India "in the sincere and sympathetic spirit of science." But as a missionary enterprise the series frankly aims at presenting Christianity as the ultimate crown of all religions. Thus the late Dr. Moulton in his "The Treasure of the Magi" studied Zoroastrianism from the standpoint of Christianity and Mrs. Stevenson studies Jainism in the same spirit in her "The Heart of Jainism." With such frank avowal of Christian bias, a rigidly impartial study of the religions of India can hardly be expected. But it would have to be admitted that at least the presentation of Indian religions is very fair. It is only in the matter of emphasis, interpretation, and conclusions that an Indian can hardly be expected to see eye to eye with the missionary authors of these books.

Dr. Cave's task is particularly difficult, as the Christian bias does not work merely indirectly, but the very subject he writes on, "Redemption Hindu and Christian," makes him draw as vividly as he can the superiority of Redemption as taught by Christianity. He is scrupulously honest. He studies "higher Hinduism," not the Hinduism of the illiterate masses—that field of easy victory for missionary ridicule and contempt. He does not miss any opportunity of bewailing the short-sighted enthusiasm which characterised the Christian missionaries of a generation ago, but we are not sure that this species of fanatic iconoclasts is quite extinct even at the present day. The breadth of his outlook comes out in sentences such as these: "the intolerance which refuses to recognise in other religions any truth is a folly commoner among Christians than Hindus," (p. 8) and "Blind to the good, and eagle-eyed to the bad in Hinduism, the harshness of missionary preaching in the past has left us an evil heritage, and caused many in India to associate the missionary enterprise with arrogance and racial pride" (p. 243).

\* *Redemption Hindu and Christian*, by Sydney Cave D.D., Humphrey Milford, Oxford University Press. 10/-

The object of Dr. Cave is to show "that Christianity is a religion of deliverance, and as such meets the aspiration of Hinduism."—(p. 18). This very object causes an inequality of treatment. In his treatment of the religion of the Hindus there is a critical appreciation and logical acumen, which are conspicuous by their absence in his presentation of the creed of Christ, or rather of Christians, for the author draws a pertinent distinction between the Christianity of Christ, and the Christianity of Christians. (p. ix).

After the introductory chapter the book divides itself into two parts. The first comprises Chapters II—VI. It presents in a lucid manner the development of Hindu doctrines from the Rigveda onwards to the days of Ramanuja, which practically means till our own day. It brings no fresh knowledge to those who are familiar with the works of Max Müller or Deussen. But it has some worth as a rapid summary, free from technicalities, which could appeal even to a lay mind. The great equation *Atman=Brahman* is regarded as constituting the basic foundation of all "higher Hinduism," while the doctrines of transmigration and *Karma* are put forward as the two other great cardinal doctrines. Sankara's Adwaitism is criticised as a weak and an inadequate doctrine of redemption, for it lies simply "in our intuitive perception of what already is and eternally has been."—(p. 72). It is the merging of individuality in an abstract one. Cold and comfortless, such an intuition brings along with it a realisation of the futility of the world as pure *maya*—a realisation which inevitably damps all desire for activity however high and noble this be.

However unsatisfactory the teaching of Sankara is found to be by Dr. Cave, he reserves his best dialectic to direct it against the whole doctrine of *karma*. Admitting a *prima facie* plausibility in it (p. 181) he finds it ultimately unacceptable. In his opinion it emphasises the deeds more than the doer, it weaves an iron chain which acts as a drag on the human spirit from generation to generation and as a climax he triumphantly points to its effect on the whole history of India: the spirit of lethargy, indifference, passivity, which, he might have added, has always made India a happy hunting-ground for aggressive foreigners. There is an element of truth in this view, but his dictum that "the best criticism of a doctrine is its history," is double edged. If this principle were rigidly applied to Christianity, in what a mangled form would the teaching of Christ appear! The terrors of the Spanish Inquisition, the intolerance of the churches, the land hunger which has decimated the native populations of America during the last five hundred years, the brutalities of Christian slave owners, the aggressive

self-consciousness of the modern European—all these constitute a ruthless commentary on Christianity, and yet Dr. Cave would be the first to repudiate these unchristian deeds in the name of Christ. And a Hindu might make a similar defence.

For once at least in his treatment of the Karmic doctrine he has forgotten to take the standpoint of "higher Hinduism." Lower Hinduism has indeed fallen a prey to the benumbing influence of an iron chain of deeds. It has emphasised the consequential side of *karma*, which has given the Hindus a capacity for patience and endurance truly miraculous. But it has a causal side, *karma* as the architect of a man's destiny, which has been lost sight of by popular Hinduism, but assuredly not by higher Hinduism. The ethical teaching of the Bhagwadgita is a manly vindication of human activity, involving as its condition a freedom to control the karmic effects of previous existence. So interpreted the notorious lethargy of India can only be regarded as an aberration, not as a fatally logical consequence of the doctrine of *karma*.

In fact properly interpreted this doctrine has a splendid virility in it. It makes evil-doing deterrent by its rigorous emphasis on the inevitable consequences of it. The only way out of the meshes of our past evil *karma* is to build a new good *karma*. If the past is distressing the future becomes hopeful. There is a strength in such a conception, which is in marked contrast with the flabbiness of the Christian conception of redemption by an act of mere faith in Christ. We are reminded of an amusing story in this connection. A Christian sinner thought he was on his death-bed, and so wanted to make sure of his heaven. He confessed all his sins, and was granted absolution. He, however, unexpectedly recovered, and his reflection was: "Alas! If I had known I was not to die I would not have repented of my sins so soon!" Of course Dr. Cave would argue that redemption can be had only by true repentance. But a Hindu might retort that true repentance is found not in a mere recantation, but in an active will not to transgress again, and we are here back again in the very heart of *karma*.

The second part of Dr. Cave's book comprises Chapters VII—X and is concerned with the presentation of the Christian idea of redemption. He divides religions into religions of law, such as Judaism and Islam, and religions of redemption, such as Hinduism and Buddhism (p. 15). With an Hegelian trick he points out the limitations of both, and puts forward the claim of Christianity as a higher synthesis of both law and redemption—an account of course which a non-Christian will not easily swallow. Anyway his picture of the personality of Christ, and of the

teachings of Peter, Paul and John forms very interesting reading. The main point that he seeks to emphasise is that Christian redemption is redemption from the world as well as from sin. "Redemption is not absorption into the Undifferentiated, the Infinite. It is communion with a holy God, impossible without the realisation of forgiveness." (p. 242). How is this forgiveness to be obtained ? By an act of faith in Christ, as Dr. Cave makes clear in more than one passage, e.g., "The Christian confidence in God's love springs not from speculation but from faith" (p. 193). "So faith in Christ sums up the whole of Christianity" (p. 212). What is the ground of this faith ? A crucifixion ! It indeed requires an extraordinary amount of faith to believe in such a sacrifice as emanating from the love of God ! Herein is found the fatal weakness of Christian Redemption.

In the final chapter Dr. Cave makes a bold attempt to prove the superiority of Christian to Hindu idea of Redemption. But it is an open question whether either can be regarded as superior to the other. As the world of Sankara is *maya*, and reality is found only in the unity of our soul with Brahma, redemption for his followers logically lies in literally reducing our wants to a zero, and thus reducing the zone of activity to a zero as well. The world is not good enough for our activities, and hence our goal is to achieve union with Brahma. The ultimate foundation of such a redemption is pessimism. The ecstasy of divine union—*ananda*—hardly compensates for the view which condemns the world of ordinary men to an endless series of births and deaths shorn of all reality. Whatever joy is to be found by a Hindu, it is only in Brahman. The world as it is holds out no joy to him, and hence his eagerness to escape from it.

The Christian view of redemption rests on the self-same basis of pessimism. Christians—and especially missionaries—never tire of dwelling on the sinful nature of man. Man is so hopelessly bad that he cannot be expected to be good except with the whole-hearted grace of God. Hence the necessity of endowing Christ with divinity. "The Absolute Holiness of Christ," (page 155) and the sinlessness of Christ stand in marked contrast to the sinfulness of humanity. Nothing is more amusing—or more perplexing—to a non-Christian than the contrast between the pulpit lucubrations on sin and the full-blooded pursuit of every delight that characterises almost all Christians. Whatever the practice be, in theory at least redemption is an escape from this sinfulness, and in order to satisfy Hindu aspirations Dr. Cave pictures it as a redemption from the world as well. But Christian redemption, as we have already remarked, is declared to be not extinction, but a fuller

communion with God. This doctrine gains its strength only by exaggerating the evils of this life. Its popularity is only due to the fact that a life of three score years and ten by believing in Christ as divine can hope to get in return eternity of heavenly bliss.

Who can fight shy of such a profitable exchange? If words could be realities, who but a fool would miss such a chance?

There is a certain pathos in the words with which Dr. Cave ends his exposition of the Bhakti movement. "As we read the works of these Indian saints we may well bid our souls blush crimson at the virtues of these true lovers of God, and inevitably we look forward to the day when the devotion so lavishly bestowed on Krishua, Rama, and Siva shall be given in full measure to the crucified and perfectly holy Saviour of the world." He indeed raises a great question: will the soul of India ever accept Christianity? We wonder! The chances are all against it for this simple reason, that a Hindu is not merely religious, he is also metaphysical—and Christianity has no metaphysics. Its appeal is purely to emotions; its foundation is only a myth. A myth against a myth, the story of Siva's saving the world by swallowing poison to the permanent injury of his throat is hardly less credible than the view that God created a world out of love (p. 35), and found it so sinful that he sacrificed his son for the sake of redeeming it. Patriotism has nothing to do with metaphysics, but it will assert itself and vote for indigenous beliefs rather than foreign beliefs which have no higher sanction behind them than mere faith.

However profound our differences be from both the views of Redemption Dr. Cave propounds, we cannot withhold from him a meed of sincere praise for the spirit in which he has approached his subject. The ethical teaching of Christ has a certain grandeur about it. His message, however, was anticipated in India by Gautama Buddha and the unknown genius who penned Bhagwadgita. But in course of time the purity of Hindu ethics was lost. It is the impact of Christianity that has once again enlivened the religious soul of India, as attested by the great figures of Rammohan Roy, Dayanand Saraswati and Swami Vivekananda. Zealous missionaries may not be content with these indirect effects of their teachings, but India is eternally obliged to them for the rediscovery of the great truth so beautifully expressed by Mr. John Drinkwater:

"Knowledge we ask not; knowledge thou hast lent;

But Lord, the will—there lies our bitter need.

Give us to build above the deep intent,

The deed, the deed."

## ROUSSEAU AND FROEBEL AS STUDENTS OF CHILD-NATURE.

THERE are no more honoured names in the history of educational reform than the glorious trio, Rousseau, Pestalozzi and Froebel ; and this is so mainly because of the depth of their insight into the psychology of the child's mind and their earnest attempt to utilise this knowledge in educating it. All the three had very clear ideas of what they were about ; only their points of view differed a little from one another, so that far from covering the same ground they were able to progress gradually from one step to another until they had completely laid the foundations of modern educational theory and practice. Rousseau uttered the warning note of a return to Nature in all her ways ; Pestalozzi said that it was not enough merely to go to Nature but that we should observe her carefully and be instructed by her ; Froebel contended that we should not stop with mere observation but should try to give expression to our ideas in our own language. " Back to Nature " was thus the watchword of Rousseau, " Observation " the perpetual delight of Pestalozzi, and " Expression " that of Froebel. But we see how the three supplement one another, and recognise the same genius working at the problem of Education in its different stages of reform—Let us now try to compare Rousseau and Froebel with reference to their estimate of child-nature, and observe how it has influenced their educational programme.

First of all, both of them had the rare gift of sympathy—of complete and genuine sympathy with the child. Its aims and aspirations, its joys and sorrows, its troubles and difficulties—all these they had realised *in manhood* as thoroughly as if they had again by some miracle become children. Of them might it truly be said that throughout life they were " as children." Both of them had a reverential regard for the nobility of childhood and both of them had a perfect faith in the high destiny of mankind—though their reasons for this were very different from one another. Rousseau revered the child because it is Nature's work and to him, " whatever comes from the hand of Nature is noble," Froebel with his ever-present idea " of an eternal Law that lives

and reigns in all things" regarded the child as the latest creation of God; the child was to him a manifestation of the divine in the human, the eternal in the temporal, the infinite in the finite. Both of them had the same high regard and respect for childhood, which eminently fitted them for carrying out their observations. But their views on childhood differ very much in other points.

Rousseau wanted the individuality of the child to be paid attention to, and throughout his *Emile* he laid particular stress on the development of his pupil's individuality. According to his scheme of things there must be a whole-time tutor for every child, who will study carefully its individual peculiarities and inclinations and so plan his procedure as to develop them to the fullest extent. This onerous office he himself undertook in the case of his imaginary pupil Emile. Secondly he advocated perfect freedom for the child: "weak and powerless as it is, why should we restrict its movements still further by confining it in swaddling clothes and other such artificialities?" said he. "Why should we not allow it as much of freedom as it wants? No harm will result from this, because it has no power to do anything."

Individuality and freedom were then the two fundamental ideas which he brought to bear on the educative process; and his method was that of imitating the ways of Nature. "Watch nature carefully," says he, "and follow the path she traces out for you. She gives children continual exercise: she strengthens their constitution by ordeals of every kind: she teaches them early what pain and trouble mean." Again and again does he return to this favourite theme. "Let nature be long at work before you attempt to supplant her, for otherwise you will be thwarting her work." It was his firm belief that a perfect education—in fact any education worth the name—can be got only by following Nature. "In all our works we shall be continually peering into Nature, and all we do shall be done under the eye of the great Teacher." Wordsworth's ideas regarding Nature had already taken root in this noble soul.

It may be objected however that his ideas are not at all practical and that, even if practical, they would not be desirable in the extreme form in which he advocates them. The fact is that like all other enthusiasts for reform, he was a visionary and did not care for minuteness of truth or for details. His mind was shocked by the extremely artificial way in which life was lived at that time, and the reaction therefore was very fierce. His trumpet voice for reform was heard throughout the land and one learns that several of the current practices that he condemned were quick to disappear. If therefore he seems "unprac-

tical" to us, we must at the same time remember that the age and circumstances in which he lived were responsible. Had he cared for strict adherence to practicability, his voice would not have been heard at all. His main ideas were sound to the core and it was his loyalty to them that landed him in trivial mistakes.

Quite other were the ideas of Froebel on these points. While Rousseau regarded the child as a self-sufficing whole, forming a world within himself when grown to manhood, and independent of the society in which he lives, Froebel thought of the child from the very beginning as a member of a greater unit, first of the family, next of the society in which his lot is cast, and finally of the whole of humanity. Thus it is that while Rousseau advocates perfect freedom for the child, Froebel recognises the rights of others as well and tries to harmonise freedom with obedience, law with liberty. It follows as a corollary from this that he does not like the isolation of the child with its tutor but wants it to be one of the family, learning tenderness, kindness and all the other abstract virtues which Rousseau wants Nature to teach, from the loving lips of its father, and the light-giving look of its mother. Not that he does not recognise the importance of Nature and her creation as a means of teaching but that he thinks that this has to be supplemented by other means in order that we may have a full growth of the child's mind. He regards home life as best suited for any beginning of education, and his reverence for it is so great that he considers it the most sacred of all human institutions. "The union of family and school life," says he, "is the most indispensable requisite of education . . . . if men indeed are ever to free themselves from the oppressive burden and emptiness of mere extraneous knowledge; . . . if they would ever rise to the joy and vigour of a knowledge of the inner nature of things—a knowledge which like a sound vigorous tree or like a family or generation full of the joy and consciousness of life is spontaneously developed from within." He is so much impressed with this idea that he repeats it several times in his writings. "Only the quiet secluded sanctuary of the family can give back to us the welfare of mankind," says he, speaking of the regeneration of humanity. Again he begins eloquently:—"Peace, harmony, moderation and all the high civil and human virtues will dwell in his soul and *in his house*, and he will secure through and in the circle of his activity the contentment for which all strive." It is not without significance then that Robinson Crusoe formed the ideal of Rousseau while the Virgin Mary, the Mother of Jesus Christ, formed Froebel's ideal. The one cared for isolation, solitude and independence; the other emphasised love and kindness,

justice and mercy, sin and its forgiveness. If to-day an ideal is to be enunciated so as to fit in with modern conditions, we shall have to pay some regard to the individuality of the child but otherwise follow the noble conception of family life (which stands but as a symbol of all corporate life) as planned by Froebel.

Another fundamental difference between the two is the fact that Rousseau requires the child to be kept healthily ignorant until it is twelve years old; after that age it can reason well and education can accomplish its work easily. During the years 5—12, its education has reference to well chosen games, ingenious recreations, the continual exercise of the senses of touch, hearing and sight, and whatever of knowledge it can attain through this means. It is only after this that the age of study begins and an acquaintance can be made with the arts and sciences; and even here such subjects as astronomy, geometry, and geography are extolled at the expense of languages and history.

Froebel was entirely at one with Rousseau in trying to make free play the medium of knowledge between the ages of 5 and 12, but he would not postpone the acquisition of the three R's until that late year: he would begin it earlier, say in the eighth year. Further, while he was anxious to rouse the spirit of enquiry in children, he did not regard "reason" as the only ally of the teacher in the kindergarten. The curiosity of the child was a sufficient incentive to learn. Anyhow, he did not regard "reason" as the be-all and end-all of things; and this again is exemplified by his paying equal attention to languages and the sciences.

Thus we see that both Rousseau and Froebel were great students of child-nature; sympathetic in their attitude and having a high regard for it. The one was a pioneer of reform against artificiality and slavish obedience to tradition, and as such laid the greatest stress on natural development and freedom. The other, recognising the claims of freedom, gave it its proper due without lessening the importance of the child's relation to the family and the society in which it lives. The one wanted that every child should have a tutor of its own; the other saw that this was impracticable, nay not even desirable. Therefore, addressing the whole of humanity, he said "Come let us live with our children; let us live for our children!" "Let their interests occupy our attention first in everything we do; and let us care more for them and their happiness than hitherto we have been doing." And this is the spirit of modern education.

## EDUCATION BY STORY-TELLING.\*

IT is gratifying to find that educational thought is now more than ever before directed towards discovering the real distinction that there is between the *educating process* that is confined to the class-room and the school grounds and the larger *problems of education* which deal with the teleological conceptions of education. The political and sociological implications of education which define its aims and determine its organisation and necessary administrative machinery are purely external problems of education which deserve close study and vigorous statesmanship. But failure to institute practical methods of educating pupils in class-rooms, calculated to realise those larger conceptions of education, renders the latter chimerical.

The history of education discloses the fact that most educational reformers were actuated by contemporary political and sociological problems to inaugurate their propaganda of educational reform. It took a long time for their philosophy of education to be translated into practical terms of class-room procedure. Rousseau, himself considered to be the founder of modern education, was propelled in the direction of educational reform by the social and political abuses of his times. He was deeply moved by the existing inequality of the treatment accorded to men of different social rank and became obsessed with a desire to undermine the very foundations of society. Consequently he presented a theory of education which was at once impracticable and antisocial—a theory which cut at the very fundamental principle of education, namely that education is entirely social in its essence. Though Rousseau ranks very prominently among educational theorists, his influence on actual class-room procedure was very limited.—So also did Pestalozzi stumble on the path of educational reconstruction after a series of failures in his attempts to ameliorate the condition of the poverty-stricken masses and the thousands of orphans thrown over the plains of Central Europe by the Napoleonic wars. His constructive programme for social welfare, as distinguished from the destructive one of Rousseau, forced him to a sounder appreciation of the function of

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\* "Educating by Story-telling," by Mrs. Katherine Dunlap Cather. Harrap & Co.

education, with the result that he gave to the world a more or less organised form of class-room procedure which, considerably modified by his followers, is still in evidence in the schools of most civilised countries. Nevertheless, his school-room practical politics fell very far short of the eloquent theories of education which escaped his lips. In Froebel, Herbart and Montessori, though each of them made of education a second choice, we find the gulf between the grand teleological conceptions of education and the simple yet real problems of class-room procedure narrowing down, by their bestowing greater attention on the means of education than on its admitted ends.

The chief cause of the divergence between the theory and practice of education is traceable to the reformer's lordly ignorance of the psychology of the child and its limited world. The reformer is much too obsessed with the psychology and the larger world of the adult, to countenance the simplicity of the child's mentality, its likes and dislikes. The grandness of his reform and the enthusiasm it inspires blind him to the simplicity of innumerable means at hand for the education of the child. One such simple means—very often woefully neglected in the education of the child—is story-telling, which has received, in the hands of Mrs. Katherine Dunlap Cather, a new meaning and a new importance.

Although her problem is that of story-telling to children—a subject which to an eloquent theorist is perhaps *infra dig.*—she closely applies to the problem the principles of child psychology and the rationale of method propounded by great educational reformers. She follows Rousseau in providing suitably for the different stages of mental development determining the child's interests. Her programme of activity for the child between three and six years of age is determined by the child's interest in sounds made by animals and other children. Into the stories she proposes to tell during this period, which she calls the "Rhythmic Period," the cries of animals and birds are introduced, and the child resonates consciously or unconsciously to these sounds in rhythmic succession. Similarly stories are constructed to suit the characteristic interests of later periods, such as the "Imaginative Period," roughly calculated to be between six and eight, during which the child revels in make-believe stories; the "Heroic Period" between eight and twelve, when the lad's adventurous spirit runs high; the "Romantic Period" from thirteen upwards when the lad's rougher instincts begin to soften into adolescent romance and sentiment.

The second great psycho-pedagogical principle which Mrs. Cather works upon is the Herbartian "Correlation." According to this

doctrine she makes the story the centre of the child's interest and weaves round it, as it were, a web whose threadlets stretch into and encompass the various bodies of human knowledge that have been handed down to us in the shape of school subjects such as language, literature, history, geography, physics, chemistry and natural sciences. She draws upon these subjects not merely for the content they yield for her stories, but also for the mental activity they stimulate in children. The fact that she succeeds in turning the elements of science into stories is itself a wonder, but her method of constructing the story, stimulating such types of child's thinking as are, alas! not often roused through the traditional school subjects, is still more wonderful. Her stories comprise the two cycles of curricula, namely the "civic—geographical—historical complex" and the "physical—biological complex," under which all the school subjects may be classified. The first cycle includes languages, literature, history and geography, and the second physics, chemistry and natural sciences.

To an antique and complacent pedagogue the idea that a simple story can be a guide to such grand subjects as geography and physics is strange and even positively repugnant. His dislike merely measures the amount of the influence of tradition upon him. To him a story is a concoction of one's brains dealing with something unreal and fantastic. He determines its disciplinary value by the degree of difficulty the child feels in stretching out its imagination to follow the strange characters of the story, and its emotional value by the apparent satisfaction the child betrays in witnessing fairies and goblins impersonating human beings. While Mrs. Cather allows a supernatural element to lurk in her stories—and this only for dramatic effect—the main content of her stories comprises the hard facts of life and the events of the natural and phenomenal world. There is, doubtless, considerable difficulty in rendering physical facts of life and scientific phenomena into the interesting and melodious strains of a story. But this difficulty is proved by Mrs. Cather to be surmountable.

Her chapters on "Building the Story" and "Telling the Story" amply illustrate the way in which she has worked. The characters of the story are not allowed to stand round waiting while a detailed description of their hair, eyes and clothes is given. The *dramatis personæ* enter the stage at once and begin "doing," and thus secure the child's attention. The body of the story is a succession of events, kaleidoscopic in character but none the less pointing to a culmination. The climax itself is the apex of interest and emotion, producing profound surprise in the listener. In short the story moves

in an unbroken line, and if there are any pauses they are to heighten the dramatic effect and focus the interest of the child on the coming events.

Another theory of education which the author touches upon, but glosses over, is the theory of Recapitulation and its corollary, the Culture Epoch theory. The introduction of story-telling in schools is traceable to the influence of the Herbartians who first propounded these theories. They said the child in its evolution from infancy to manhood recapitulates the various stages of the evolution of the human race. The pedagogical programme they proposed for the child in view of this phenomenon, provided different subjects of study and different activities for the different stages of the child's growth, corresponding to the culture epochs of the race. In their view, the child corresponding to the primitive man, ample justification for the relation of fanciful stories to children was found, because the primitive man indulged in mythology. The child's keen interest in things grotesque itself recommended the adoption of the Culture Epoch theory.

How far Mrs. Cather leans towards this theory is difficult to estimate. Her insistence that hard facts of life and scientific phenomena should be organised to form the content of stories goes to show that she discourages the presentation of untruth in the form of stories. She realises the difficulty of organising real material sufficiently well to interest children, but she does not despair. "This is not so difficult" she says, "as it may seem, for many of the truths of science have been put into simple language by men who were poet enough to bring to children something of their mystery and beauty . . ." Further, Dr. Hetherington, who writes the introduction to the book, in condemning untrue stories says, "Just so far as stories are untrue and without great moral value, yet are fascinatingly told, so far do they encourage untrue imagining and emotional attitudes, and therefore untrue thinking." Again, he says, "The fairy-tales of the future will be well told stories from our sciences of human life and nature—the two natural centres of interest in the environment—and we may expect as results in public opinion a broader commonsense and a lessened gullibility. In this organisation of science and modern thought in story form for its larger use in education the story-teller has still a great unfinished task to perform. Its beginnings are in this book."

Though both Mrs. Cather's and Dr. Hetherington's theories propounded in this work savour of "Realism," yet Mrs. Cather's position is not quite that of Dr. Hetherington, as may be judged from her other statements. She herself repeats the oft-asked question, "Is there not danger of making liars of children by feeding them on these (fairy)

stories?" and borrows the answer from Dr. Ebers, the Egyptologist and novelist, who says, "So the vividly awakened power of imagination (by the fairy stories) led neither me, my brothers and sisters, nor my children and grand-children into falsehood." She endorses Dr. Ebers' utterance by saying that his words "are based on sound psychology." Her argument is that the time will come when the child can undeceive itself. "Let him wander at will," she says, "through every realm of fancy, along its sun-kissed high ways, among its shadowy glens and wild cascades, but let him realise that it is a world of make-believe, not of fact . . . . His imagination will be as much roused, his emotional nature will be stirred as deeply, and there will be no discovery later that his mother or teacher deceived him, no temptation to present as fact what he knows to be purely fancy, which is a certain step toward the field of falsehood." The principle underlying Mrs. Cather's assertions here is the faulty application of Rousseau's theory with which she starts her book, namely that provision must be made for the different interests of the child at the different stages of its development. The second stage in the child's growth according to her is the Imaginative Period, when the child revels in the make-believe. She does not hesitate to fill the programme of this period with fairy stories, with a view to feeding the wild imagination of the child.

Nobody will deny that the imagination of early childhood is exuberant, but to say that such a wild and run-amock kind of imagination should be encouraged is to make a very large assumption. The fact that certain traits are observable in children at a certain stage does not justify the idea that such traits ought all to be fostered. The instincts of the child are not all equally beneficial for its proper growth. Education, as Thorndike says, is to encourage some of them as they are, to destroy some, and lastly to redirect some others in the right channel. The story of Itard's "Wild Boy of Aveyron" fully illustrates the educability of, and the need for educating, the inherent tendencies of children. We will not say, as Rousseau inconsistently said, that the child is a little devil. But we can certainly make it one, if we allow all its instincts to develop unaffected.

From purely psychological considerations we can see how worthless and even how dangerous is the desire to exercise the inferior type of imagination that fanciful stories are expected to exercise in children. If we call fancy, imagination, there is no need to foster it by extra doses of fanciful material, as it is found already in great abundance in children. All the attempt that a teacher or parent has to make in educating the imagination of the child is to control the wild type of

imagination and convert it to what is called the Productive Imagination—the only kind which is worthy of development either in the child or in the adult. The *modus operandi* of the Constructive or Productive Imagination itself determines the nature of the material that must be presented to the child. Productive Imagination makes use of sensorial material that is within easy reach to reconstruct a world which it cannot sense. The value of productive imagination to mental development lies in that it arranges the existing elements of experience in a different order and creates new pictures. It is with the help of this most important of human gifts that poetry is written, music is composed, pictures are painted, statuary is carved, architectural piles are planned, great engineering feats are executed, inventions and discoveries are made. The fundamental requisite for the working of the constructive imagination is either the sensorial material presented now or its images already embedded in experience. On the reality and soundness of sense perception or its images will the quality of the new pictures drawn depend. Faulty sense perceptions produce images grotesque in form and untrue in quality.

The danger of feeding the mind of children with unreal and fantastic material is seldom appreciated. Dr Montessori has very earnestly drawn the attention of parents and teachers to it. Habituating the child to imagine and even believe the unreal, will ultimately lead to a pathological condition of the mind. It is easy enough for the child to disbelieve in later life that a frog can dictate a policy of administration, which when a child he was made to believe as a veritable fact. But he cannot free himself from the influence that that false belief exerts on his general thinking, or from the credulity which such a false belief fosters. The gullibility which adults betray in an extraordinary measure is traceable to the fact that in their childhood false ideas were instilled in them, which they were only too eager to believe. Dr. Montessori plainly asks, "Why give a child two pieces of bread and ask it to imagine that one is bread and the other butter, and eat?" as though the child can ever get the satisfaction of having eaten bread and butter, while munching bread alone. The apparent satisfaction of the child is not the real satisfaction, and the adult teacher must not tempt himself to the belief that he has satisfied the craving of the child. It seems strange that the champion of the "freedom of the child" should be advocating the institution of restraint upon the free and mobile imagination of the child. The apparent contradiction is explained by the fact that to Dr. Montessori freedom is not disobedience to the law of natural development, but complete obedience to it, just as discipline and

pleasure are, or ought to be, concomitants in any programme of work. The freedom of rabid imagination may breed pleasure, but who can tell the magnitude and permanence of the pleasure that a disciplined imagination may cultivate?

The probability is that the difficulty teachers feel in constructing stories from realistic material and in relating them in an interesting manner drives them in despair to the line of least resistance—to the using of fanciful material for stories, which renders construction and delivery remarkably easy. Mrs. Cather has succeeded in proving that the difficulty is not insuperable. It is, however, a pity that she should hesitate to stand by the Montessorian Realism, which she accepts and yet shows an inclination also towards the older theory.

Yet her contribution to modern educational thinking is of much importance. How the story is the moulder of ideals and the illuminator of facts is brilliantly illustrated. How it invests the dry facts of history and science with life and interest is clearly shown. That it develops the appreciation of literature, music and art is positively proved. Although story-telling is as old as Plato and its pedagogical sanction was given in Herbart's time, yet the function of the story, its form, and its delivery have seldom been systematically thought about. Mrs. Cather has raised the story from the position of idle gossip and fantastic imagery to its rightful position as one of the best instruments of education.

S. P. CHINNAPPA.

## THE MESSAGE OF MATTHEW ARNOLD.

### I.

AT a time when the world is just emerging from the grip of a most terrible and devastating war, which to a large extent unsettled men's opinions and their faiths, but which at the same time has raised hopes and expectations of the dawn of a new era in history purged of the sins and the evils of the past, it is useful and refreshing to turn to a poet who, placed amidst circumstances of a not dissimilar kind, suggested remedies for the many ills from which his own age was suffering. Such a sane poet and profound thinker is Matthew Arnold.

Prominent among the Victorians, about the middle of the last century, Arnold found himself amidst an environment that reminds us of our own day. Do not the words—

“ This strange disease of modern life,  
With its sick hurry, its divided aims,  
Its heads o'ertax'd, its palsied hearts”

prophetically utter our own feeling at present, just saved from the world conflagration? It was a time of intellectual, spiritual and social convulsions. Europe had emerged from the era of world-shaking events, of feverish action and dazzling campaigns, when the Napoleonic wars closed on the field of Waterloo. But England had a deeper and mightier problem to solve. In the intense reaction against the glorious but visionary ideals of the French Revolution even the better minds shared. An atmosphere of snug self-complacency is characteristic of Victorian England. An unprecedented epoch of national wealth and prosperity followed on account of industrial and commercial expansion. But beneath the pomp and glitter of the new wealth lay the squalor, iniquity and misery of the working classes, which unmistakably manifested itself in the form of the Chartist movement. On the other hand, the mental horizon of the average Englishman became contracted, his outlook on life narrowed. We perceive a loss of breadth and naturalness and frankness in English life. Against this spirit of narrowness and provincialism arose an intellectual revolt led by Clough and Arnold. Side by side with the material prosperity, the scientific researches and discoveries of Huxley, Darwin and Spencer and others were revolutionising men's ideas about the past history of the earth and of man. These new truths and revelations were not

without their effect on religion. A conflict between religion and science ensued, men's traditional faiths were unsettled and a sceptical reaction followed. There was opposition between the authority of the Church and liberty of thought. While many were weaned away from the established Church, rationalism gained numerous adherents, Oxford became the centre of the Tractarian movement and the Catholic revival led by Newman, Pusey, Keble and other thinkers. Arnold was in the vortex of the spiritual restlessness of his age and he was profoundly affected by it, though he maintained a passive and serene attitude towards it. He saw with regret "the something that infects the world," and his poetry is a true mirror and faithful expression of the scepticism, weariness and religious disquiet of the cultivated minds of the age. If Arnold and his contemporaries found themselves

"Wandering between two worlds, one dead,

The other powerless to be born,"

do we not find ourselves in a similar position to-day? And may we not well hope that the light gleaned from such an illustrious poet will perhaps be able to illumine our path in the dark days that lie before us?

## II.

The literary influences that moulded the character and poetry of Arnold were twofold. He drew his real inspiration from the masters of antiquity, and his lucidity and gravity of mind inclined him specially to Homer and Sophocles, the latter of whom, according to the poet, "saw life steadily and saw it whole." Among the moderns he humbly acknowledges himself a disciple of Goethe, "physician of the iron age," and Wordsworth, the genuine poet of Nature. The apostle of culture in England found himself irresistibly drawn towards Goethe, whose critical eye, "free from mists and sane and clear," recognised the spiritual unrest and made a manful effort to control it; and Arnold was at one with Wordsworth in finding in the beauty and sublimity of Nature the best assuagement of the mental conflict and moral perplexities of human life. He shared in some degree the attitude of both these poets, probing deep into the problems of human life and realising pleasure and "sweet calm" in the freshness of Nature.

Arnold alone, among the nineteenth century poets, stands quite unaffected by the main currents of the Romanticism of the century. He has not the emotional abandonment or warmth of imagination of the Romanticist. He upholds the banner of the Classical ideal, and his poetry, though less spontaneous and robust than that of some others, is remarkable for its finished workmanship, its disciplined restraint and its chiselled beauty of language.

Arnold was of an essentially reflective nature, and the spirit of calm meditation gives a certain majesty to his verse. He also inherited a lofty didactic impulse, and this high moral tone colours all his work. Having himself passed through a period of storm and stress, and having painfully felt the divorce between soul and intellect, characteristic of his age, it is natural that an undertone of melancholy should permeate his poems and give them a sense of brooding pause. Of this elegiac note he is a perfect master. He was never an optimist like Macaulay, nor did he like Browning rest satisfied with the simple faith—“God’s in his heaven, all’s right with the world.” His conception of the Poet and his function is very noble and lofty. “Not deep the poet sees but wide.” In *Resignation*, a poem of concentrated and pathetic beauty, he declares—

“The Poet, to whose mighty heart  
Heaven doth a quicker pulse impart,  
Subdues that energy to scan  
Not his own course, but that of Man.

Before him he sees Life unroll,  
A placid and continuous whole ;  
That general Life, which does not cease,  
Whose secret is not joy but peace.” . . .

It should be admitted that Arnold always aimed at living up to that ideal, and his warm sympathy and intense sincerity make him a sane and helpful guide, as well as a true interpreter of the spirit of his age.

### III.

Arnold’s definition of poetry as “a criticism of life” is applicable to most of his poems, especially his lyrical poems. A close and careful observer of human life, a profound thinker and critic, he was in some respects a prophet of his time. He clearly saw and pronounced on the worst flaws in modern life,—its ceaseless bustle and noise, its feverish haste and unrest, its conflicts of dim and undirected aims, its contrast between the inward life and the life of division and distraction. His poems reflect the moods of sadness, world-weariness and anguished doubt, that lay most deeply hidden in his nature. How truly has he characterised the life of the majority of men in this world !

“Most men eddy about  
Here and there—eat and drink,  
Chatter and love and hate,  
Gather and squander, are raised

Aloft, and hurled to the dust,  
Striving blindly, achieving  
Nothing, and then they die.”

His is not a joyous acceptance of life, but to question about its hopes and fears, aspirations and failures. Moved by the sight of the aimless and frivolous life led by most men, he was weighed down by a sense of the loneliness of humanity: “a wanderer is man from his birth.”

“ In the sea of life ensiled,  
With echoing straits between us thrown,  
Dotting the shoreless watery wild,  
We mortal millions live alone.”

Though this feeling of the isolation of mankind deeply affected his opinions, his ideal of Man as he might be is pitched very high, because he was fully conscious of the infinite possibilities latent in human nature :

“ Yet the will is free :  
Strong is the soul, and wise and beautiful :  
The seeds of Godlike power are in us still :  
Gods are we, Bards, Saints, Heroes, if we will.”

To lead mankind in their arduous path to this goal, to inspire the weak and to encourage the stragglers, is the duty of leaders of men, who now and then “like angels appear” in every country. These heroes are

“ Souls tempered with fire,  
Fervent, heroic and good,  
Helpers and friends of mankind.

Ye fill up the gaps in our files,  
Straighten the wavering line.  
Stablish, continue our march,  
On, to the bound of the waste,  
On, to the City of God.”

In spite of the noble example set by these men of light and leading it is by the measure of the average man, what he is and what he strives to be, that the general level of character, enlightenment and culture in a society will be determined. Throughout his life Arnold was animated by a craving for culture, for the attainment of “sweetness and light,” and he employed all his powers and resource; in preaching this gospel to his countrymen. His true ideal of human life was a perfect synthesis of the two qualities which he termed Hellenism and Hebraism. By virtue of the former, men will be glad to welcome new ideas and

will delight in the arts reflecting the beauty of life; by virtue of the latter, one will try "to walk staunchly by the light one has, to be strict and sincere with oneself, to be earnest, so that man may be able to rescue his life from thraldom to the passing moment and to his bodily senses, to enoble it, and to make it eternal." Seeing how far people were from this ideal, he characterized them, especially the aristocratic ruling classes, as barbarians, and mercilessly exposed "the barren optimistic sophistries of comfortable moles."

"What is the secret of happiness in life?" was another eternal problem that constantly engaged Arnold's mind. Every one wishes to be happy, yet how few realize that object! Human life is a blending of happiness and misery, the latter generally preponderating. It is natural for man's heart to yearn for joy, but when it is found unattainable, what are we to do? On the one hand we should not entertain wild dreams or "nurse extravagant hopes" of happiness; and on the other hand we should try to moderate our desire, because disappointment leads to despair. The road to happiness lies not in multiplying our wants and enlarging the bounds of our desires—the characteristic of the complex modern civilization—but in adopting the ancient ideal of plain living and high thinking. He lays his finger on the sore, when he says:

" We would have inward peace,  
Yet will not look within;  
We would have misery cease,  
Yet will not cease from sin.

We want all pleasant ends, but will use no harsh means."

The centre of happiness lies not in the outside world: "the aids to noble life are all within." Arnold is a true Stoic, and he often lays emphasis on the Stoic virtues of self-control, patience, sobriety, endurance and resignation. The possession of these qualities alone will enable a man to curb his passions, to overcome temptations, to face difficulties with manliness, to take failure with fortitude, and to bow to the might of forces he cannot control. Arnold's influence on contemporary ideals of life was considerable and wholesome.

#### IV.

Another problem that is of perennial interest to mankind is the place of Religion in human life. Arnold lived at a time when, as a result of the conflict between science and revealed religion, man's faith in Christianity was being undermined and violent religious controversies were agitating the public mind. In *Dover Beach*, of the Sea of Faith

once so full and bright he only hears "the melancholy, long, withdrawing roar," which to his mind "brings the eternal note of sadness." It was with inexpressible pain that he noticed this shrivelling of the fountain of spirituality, and much of his poetry reveals the voice of one disturbed to the very centre of his spiritual life by the prevailing doubts of his age. With infinite sorrow he saw that we "never once possess our soul before we die." Everyone is familiar with the following beautiful lines expressing a great truth :

" We cannot kindle when we will  
 The fire that in the heart resides,  
 The spirit bloweth and is still,  
 In mystery our soul abides :  
 But tasks in hours of insight willed  
 Can be through hours of gloom fulfilled."

Arnold had in his youth to pass through an arduous struggle between his head and his heart, between his reason and his intuition. Brought up at home in a simple and devout faith in Christianity, which was unsettled by the controversies then raging at Oxford, he faced those doubts and questions honestly and reverently,—in his heart longing to accept the Christian faith but in his head demanding proof and scientific exactness before he did so. His doubts did not make him a materialist; because he had an unquenchable craving for spiritual light and peace. He was heterodox, but imbued with a true religious spirit. He detested the unethical materialism of his times, and was convinced that the miseries and evils of this world could be cured only by a spiritual regeneration. His agnostic idealism, which defined God as "a stream of tendency, not ourselves, which makes for righteousness," indicates his creed, if he had any; and Arnold is a living proof that a man can be good without the help of dogmas.

To the sceptic he seems to say: If you don't believe in another life, "pitch this one high;" if you don't believe in an external God governing you, "more strictly then the inward judge obey." To those who wrangle about the comparative merit of different religions, he tolerantly hints that God

" Hath looked on no religion scornfully  
 That man did ever find."

He realized full well from his own experience that every thinking being is naturally endowed with a spiritual thirst,—

" A longing to enquire  
 Into the mystery of this heart that beats  
 So wild, so deep to us, to know  
 Whence our thoughts come and where they go."

And he was also convinced that the only means of satisfying that thirst is by a purification of the soul, by a spiritual rebirth of each individual. This development of the soul cannot be attained through any external agency, by any outside help; because

“ No man can save his brother’s soul,  
Nor pay his brother’s debt:  
Alone, self-poised, henceforward man  
Must labour; must resign  
His all too human creeds, and scan  
Simply the way divine.”

But Arnold’s is not a counsel of despair. The chief message from his “sad lucidity of soul,” like that of the ancient sages, is—Know Thyself!

## V.

In the midst of the intellectual restlessness and moral perplexities agitating him and his contemporaries, Arnold turned to Nature for relief and consolation. Away from the adventures of the active world, to escape from “the infection of mortal strife,” he was glad to get back to the large impersonal love of Nature. The conviction of man’s essential loneliness also drove him to the contemplation of Nature. Her influence on his mind is beautifully expressed in his appeal to the stars—

“ Ye who from childhood up have calmed me,  
Calm me, ah, compose me to the end.

Ye stars, ye waters,  
On my heart your mighty charm renew:  
Still, still, let me, as I gaze upon you,  
Feel my soul becoming vast like you.”

His worship of Nature is spontaneous and is present in essence in all his work, because she is the balm for every woe. It is the beauty delicacy and sublimity of Nature in her gentler and more subdued moods that specially appeals to him; and he loves to steep his poems in the colours of the cool mountain pastures or the starlit summer sea. Communion with Nature not only acts as the best kind of distraction, elevating the spirit to a higher plane, but her strange and mysterious power gives soothing and refreshment to the mind wearied by life’s worries and responsibilities. Also the great healing and restorative power inherent in the vital energies of Nature acts as a proper anodyne for the pain of lacerated hearts.

“ Calm soul of all things; make it mine  
To feel, amid the city’s jar,

That there abides a peace of thine,  
Man did not make and cannot mar."

But Arnold's worship of Nature is quite different from that of Wordsworth, his poetical master. Whereas Wordsworth found high contemplative joy and unbroken peace by his silent communings with Nature, to Arnold the magic of Nature gives not rest but only soothing, not joy but relief, not peace like Wordsworth's, but only "sad serenity of soul." In Nature Wordsworth found a key to the mystery of life and its problems, but to Arnold she only heightens the burden of the mystery by her cooling and refreshing influence.

Arnold's reverence for Nature is due to his innate faith that she is greater than Man; Nature is calm and eternal, but human life is feverish and transient.—

"The poet who sings them may die,  
But they are immortal, and live,  
For they are the life of the World."

In addition, whereas man constantly desires human support and fellowship, the stars are sublimely self-dependent—

"Alone they live, nor pine with noting  
All the fever of some differing soul."

It is true that Arnold found in Nature a soothing influence upon his own wounded spirit, but she was to him more than a ministering angel, being a moral teacher of infinite power and grandeur. Man has to learn from her many a lesson for his own sustenance and moral strength. She teaches us fortitude in the midst of our trials and difficulties, by her attitude of calm majesty. The poet, in one of his sonnets referring to the apparent conflict between work and peace, apostrophises Nature:

"One lesson, Nature, let me learn of thee,  
Of toil unsevered from tranquillity;  
Of labour, that in still advance outgrows  
Far noisier schemes, accomplished in repose."

Another great truth man has to learn from Nature is in connection with the eternal problem of human happiness. Nature's stern admonition to man is:

"Resolve to be thyself: and know, that he  
Who finds himself, loses his misery."

## UNIVERSITIES AND SCIENTIFIC RESEARCH.

"IN training research men the university will naturally become the custodian and promoter of pure scientific research. Here is the fountain head whence we shall ultimately draw our men for industrial research and for national research."—*C. E. Skinner*.\*

The recent Great War has brought to light two important facts—the dependence of national greatness upon scientific knowledge, and the dependence of industrial development upon the intelligent application of scientific knowledge and method. In the modern world, the demand for scientific research, in almost every field, is growing with a rapidity wholly unprecedented. The four years of war "have done more than a century of peace to impress on the public mind the indispensability of scientific research to national prosperity." The result has been that every great modern nation is, at present, anxiously engaged in reconstruction which, in the main, is mostly concerned with improvements for the promotion of scientific research in all its phases.

But common observation tells us that it is not every country that produces research men and research work of the first order. Is it in part because no research geniuses are born there, or is it that we fail to recognise them and neglect to provide them with the essential facilities?—"youths, may be, on whose humble birth fair Science frowned not, flowers born to blush unseen and waste their sweetness on the desert air, mute inglorious Miltos whose genius remained latent because we took no trouble to draw it out?" If so, how are we to promote and foster research in a country that occupies the zero position in the scale of research?

To answer such questions one needs, first of all, a clear knowledge of the nature of scientific research. Following the lines of Mr. Skinner, we may conveniently divide scientific research under three broad heads—University research, Industrial research and National research. University research may be taken to include not only research in pure science but also the equally important function of training men for research. Industrial research consists of original work in applied science and therefore comprises all that is done by and for industrial concerns.

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\* Address before the American Institute of Electric Engineers.

with the purpose of aiding industry. National research is that carried on or initiated by government for the purpose of benefiting the people of the country as a whole. Every country has, more or less, to pass through these several stages in the above order before it can reach the highest stage of development.

Now, industrial and national research, which belong to a later stage in national evolution, are based upon, and therefore absolutely dependent on, university research. The university is the nucleus, and the birth-place, of research workers in a nation. It is, therefore, rightly emphasised by many, that in addition to original work in pure science, "the primary function of the university in research should be the training of research men, just as they are now equipped to turn out men with academic and engineering degrees." In furthering research we are often reminded that "the highest form of research is not made to order and that there is more in genius and in opportunity." But then it is also equally true that "it requires a genius to recognise a genius," as Sir Humphry Davy's greatest discovery was Faraday. In most instances, the potential research worker requires "making," and fertility of mind is not so much an inborn quality of the mind itself, as due to the training and association which that mind has had. Therefore, if we are to pick up the right sort of men for research, our first duty is to place men of genius at the head of research departments in our universities. In the words of Dr. Juritz, "It comes to this then, that we should see to it that our universities are well equipped with scientific research workers, and it is pre-eminently desirable that a system of research professorships should be instituted, the chairs to be occupied by men of enthusiasm, men who will inspire a like zeal and devotion amongst those of the younger generation whom they gather around them, men of personality and character, who will kindle in the breasts of the research students feelings of admiration and respect for them and their work." Such men will naturally become the custodians and promoters of scientific research at university centres. In western countries, it is the inspiration of such men of genius, personality, and character, that has been mainly responsible in keeping the traditions of scientific research at such a high level in universities like Cambridge, Leipzig, Berlin and Harvard. On the other hand, Canada, Australia, South Africa, and New Zealand, peopled as they are by the same European races, certainly cannot lack youths full of enthusiasm and ability for research, but yet they have not produced a Thomson or a Rutherford. Why? Because they have lacked opportunity, since "much depended on the men they had as professors." This is the

universal secret. Our Indian universities are labouring under the same disability. But that when opportunities are given the right sort of young men are readily found for research work, is amply evidenced by the case of Bengal where, in one generation, the indomitable spirit of two men of genius has been successful in creating a "school of chemistry" and a "school of physics." Therefore, it is the solemn duty of every university, after it has fully equipped itself for turning out men with academic distinction, to provide abundant facilities for the making of our future research workers.

Passing on to industrial research, we notice that it has some utilitarian end in view, whereas pure scientific research is almost exclusively confined to the discovery of truth. Unless research in pure science is based on a solid foundation at the universities, progress in industrial research is impossible. The investigator in pure science has been likened to the explorer who discovers new continents or islands or lands before unknown ; the investigator in industrial research to the pioneer who surveys the newly discovered land to locate its mineral resources, to determine its forest areas, and to ascertain the position of its arable lands. Or in Huxley's words, applied science is nothing but the "application of pure science to particular problems." In order that a country may derive the best advantage there must be close co-ordination between university and industrial research. While the university is the feeder of industrial research, "industry should recognise that, from a purely selfish motive, if from no other, its interest lies in endowing research chairs at the universities and in seeing that they are occupied by men of genius. The very nature of industrial research implies that there must be a constant accession to the ranks of its workers of persons trained in pure scientific research. If such accession be intermittent, or if the increase of knowledge by means of pure scientific research be hampered, industrial research will inevitably be limited in corresponding degree." (Juritz).

The sphere of industrial research is rather exclusive and is limited by the needs of individual industries. This class of research is undertaken with specific objects, especially with a view to improvements in manufacturing processes and the invention of new ones, and to the investigation of properties of materials and products. It is, therefore, naturally fostered by industrial organisations, many of which have research laboratories as part of their business enterprise. But national research, though it approaches more nearly to the industrial than to the university type, is often undertaken for the promotion of industries in general, and thus its outlook is considerably wider. Naturally organisations for this grander work must be undertaken by the government of

the country, or started by munificent millionaires. The National Physical Laboratory in England is an institution of this type, which, in the words of its late director, is "a central institution, carrying out work which might be common to a number, and serving as a centre from which information is disseminated, and to which manufacturers will come for suggestions and guidance." The discoveries of the men of science are rarely in a form to be assimilated directly by industry and to become available for the national advantage. This gulf is bridged by national research institutions, which render scientific discovery more readily available, and spread more widely knowledge which may be of the utmost service to the manufacturer.

A few words about the practical aspect of this question. In the light of the above discussion, it should be the aim of every one of the Indian universities, young and old alike, to organise in the near future a University College of Science of its own, under the guidance of distinguished men of science, so as to develop university research of a high order. A scheme like this has behind it the full weight of all the great universities in all progressive countries. In recent years, an organisation of this type has been successfully engineered in our own country. The University College of Science at Calcutta is the outcome of the princely endowments of two great sons of Bengal. It will be fully equipped "with laboratories in every department of science, chemistry, physics, experimental psychology, botany and zoology." At present only the departments of chemistry and physics have been fitted up fairly well. Within the short period of a few years, the work done has been so promising that it is now proposed to increase its value by adding a technological section. It is well to bear in mind that institutions for industrial and national research will be fruitful only when research at the universities is placed on a sound and secure footing. Till then such institutions will be failures. Such has been the case with the Tata Research Institute: it has failed to come up to the expectations of its founder and well-wishers for no fault of its own—it has been in the position of a factory without raw materials.

Those that have followed me so far will realise that effort will be of little avail unless the nation as a whole learns to appreciate the importance of scientific research to national prosperity. Much is to be done to evoke a more intelligent interest in science among men in general before we can induce our legislators to realise the necessity for "large expenditure and generous support."

## ON THE PRESERVATION OF BOOKS.

PAPER manuscripts of good old age there are in every library intended to contain them. Government records also include specimens of such manuscripts. Manuscripts four to five hundred years old are not rare ; those a hundred years old are fairly large in number. I have seen in one of the taluq offices papers one hundred and twenty years old ; and have in my possession a copy of Bhagawat written by my father and at least eighty years old. The latter is well preserved and shows no sign of worm attack.

Half a century ago, for copying Sanscrit religious works paper and ink were specially prepared. I have helped in preparing them and also used them myself. The practice has gone out of fashion owing to the introduction of printing. There may still be stray persons who thus prepare their own copies of religious works and their own materials. A friend of mine, who died very lately, never used printed copies of sacred works.

Such manuscripts are mostly in loose sheets and as a rule are not bound. The sheets in convenient quantities are placed between two thin wooden boards, slightly larger than themselves, and tied up in square pieces of cloth or silk into bundles of convenient size. A big work runs into many bundles.

The paper was prepared in the following manner. Good paper was selected and then cut into sheets of the required size. These sheets were then thoroughly soaked in a concentrated solution of alum. They were then dried in the shade, and polished by a large cowry (shell) on a wooden board. The sheets were then ready for use. Occasionally they were coloured by a paste made of turmeric (अंचेहलदि) and rice flour.

The ink was prepared from lac. It was of a bright red colour and was so used where required. It was blackened for general use by lamp black prepared at home by burning sweet oil under iron plates. The lamp black was placed in a clean cloth and rubbed into the ink in a shallow vessel. The process was not difficult, but required great care. The least touch of oil spoilt the ink and it had to be thrown away. The ink was stored in copper vessels and taken out as required. The pen

used was a reed or a stick of Bagani, a palmyra which yields toddy and is common.

Printed books a century old do not show such deterioration as recent ones. I have by me now a copy of a certain English dictionary printed in 1910. I purchased it some four years ago. It is already worm-eaten and will have to be got rid of. This seems to be due chiefly to the boards used in binding. It is evident that very inferior material is nowadays used in their manufacture. Probably owing to the great demand for paper its quality also has greatly deteriorated. Inferior paper answers many purposes. Paper of first rate quality is both scarce and dear. For economy a great many works are printed on cheap paper, and consequently become a prey to worms.

There are various prescriptions for preparations for application to books to protect them from worms. They are called "book solutions," and consist usually of camphor and corrosive sublimate and carbolic acid dissolved in rectified or methylated spirits, and are applied with a soft wide brush. Much undeserved faith is placed in them. One such prescription I give below. It can be compounded by any druggist.—

Book solution—

1 pint of methylated spirits.

½ oz. corrosive sublimate.

½ oz. carbolic acid —

Mix and paint on with a brush.

The application of alum to paper as a preservative may be considered so far a success. The question at least deserves thorough investigation. The alum may be used in the manufacture of paper. I have suggested to printers the use of a solution of alum instead of plain water to wet the paper, but the suggestion was not carried out. This may be due to cost or extra trouble involved, or to some effect produced on printer's ink.

To save books that have already been attacked by worms is a far greater difficulty. I am trying a solution of alum in fresh water, and cannot yet say what the result will be.

Y. S. RAO.

## REVIEWS.

*More Translations from the Chinese.* By Arthur Waley. Allen and Unwin.

THIS volume will be found to be of quite unexpected interest by the average reader, who knows nothing about Chinese literature. The author has made a literal translation of selections from the writings of eleven different poets and prose authors who lived between the fourth century B.C. and A.D. 1072. It is a pity that Mr. Waley was not inspired to put his translations into the form of regular blank verse, as the poems are full of imagery and human interest, and would make very vivid poetry. They cover almost every phase in the daily life of a Chinese gentleman of the official class, and they breathe such a modern spirit that it is difficult to realize that they were written many centuries before Europe emerged from barbarism. This peculiarity brings home to one how old civilization is in China and how little it has advanced during the past twenty-five centuries.

The first poem—"The Great Summons," by Chu Yuan—is a prayer of the poet (who was in fear of death) to his own soul, imploring it not to leave him—a quaint conceit. The soul is warned of the dangers and perils lying in its path if it goes away to the East, West, North or South :

" For to the East, a mighty water drowneth  
Earth's other shore ;  
Tossed on its waves and heaving with the tides  
The hornless Dragon rideth ;  
Clouds gather low and fogs enfold the sea  
And gleaming ice drifts past ; "

while in the South :

" Mile on mile the earth is burnt away  
And poisonous serpents slither through the flames."

The North is an equally undesirable resort, for it contains

" The lame Dragon's frozen peaks,  
Where trees and grains dare not grow,  
And the sky is white with snow  
And the cold cuts and kills."

Many perils are found in the West too, where

“ Demons rage, swine-headed, hairy skinned,  
With bulging eyes,

Who in wild laughter gnash projecting fangs.”

The theme then changes to the pleasures of life in China in the lands of Ching and Chen

“ Where pies are cooked of millet and bearded maize,  
Guests watch the steaming bowls,  
And sniff the pungency of peppered herbs,  
And taste the badger stew.”

Among the delicacies of a Chinese menu in those remote days we find—pigeon, yellow heron, black crane, fresh turtle, sweet chicken cooked in cheese, pickled sucking pig, flesh of whelps (presumably puppy dogs) floating in liver sauce, salad of minced radishes, roasted daw, steamed widgeon, grilled quail, boiled perch and sparrow broth. Four strong liquors are also referred to as warming at the fire so that they “grate not on the drinker’s throat.” Truly they did themselves well in the way of food in ancient China.

The poet goes on to dilate on the pleasures of music and the attractions of Chinese ladies, and concludes with a loyal tribute to the reigning king. Few souls could, we fancy, resist such a tempting appeal and we feel sure that poet’s particular soul yielded to his persuasions and stayed with him till a green old age!

The third poet “out-Omars” even Omar Khayyam in his love for strong wine. Here is his naïve avowal:—

“ When I am drunk, I love heaven and earth,  
Motionless I cleave to my lonely bed,  
At last I forget that I exist at all,  
And at that moment my joy is great indeed.”

He attempts to justify his intemperate habits by the following ingenious argument:—

“ If high heaven had no love for wine,  
There would not be a wine-star in the sky.  
If earth herself had no love for wine,  
There would not be a city called “ Wine Springs.”  
Since heaven and earth both love wine,  
I can love wine without shame before God.”

Li Po comes Po Chu-i with a description of early summer—

He sings:—

“ Still and clear the first weeks in May,  
When trees are green and bushes soft and wet,

When the wind has stolen the shadows of new leaves,  
And birds linger on the last boughs that bloom.”

This poet also gives us a life-like description of harvest time in the following lines :—

Wives and daughters shoulder baskets of rice,  
Youths and boys carry the flasks of wine  
To the strong reapers toiling on the southern hill,  
Whose feet are burned by the hot earth they tread,  
Whose backs are scorched by the flames of the shining sky.  
Tired they toil, caring nothing for the heat,  
Grudging the shortness of the summer day.  
A poor woman follows at the reapers' side,  
With an infant child carried close at her breast ;  
With her right hand she gleans the fallen grain,  
On her left arm a broken basket hangs.

Po Chu-i's poems take up nearly half the book and contain many fine passages. A poem on the simple life in a country village is one of the best of them, and there are others on a variety of subjects, such as illness, rain, fishing, and old age. “A lazy man's soul” describes the hopeless inertia of a man who is too lazy even to open letters from friends and relatives. Po Chu-i rose to high official rank in China and the feelings expressed in the two following passages do credit to his modesty and solicitude for the welfare of the people.—

“ How can I govern these people and lead them aright ?  
I cannot even understand what they say,  
But at least I am glad that the taxes are in,  
To learn that in my Province there is no discontent.  
I fear its prosperity is not due to me  
And was only caused by the year's abundant crops.

I have not ruled you with the wisdom of Shao Kung ;  
What is the reason your tears should fall so fast ?  
My taxes were heavy, though many of the people were poor ;  
The farmers were hungry, for often their fields were dry.  
All I did was to dam the water of the Lake  
And help a little in a year when things were bad.

A poem on sick leave contains the following amusing commentary on official life :—

“ I begin to think that those who hold office  
Get no rest except by falling ill ! ”

The next author Yuan Chen contributes “ the story of Tsui Ying

Yung" "a novelette in prose."—This and "the story of Miss Li" by Hsing Chien are both love stories of a rather feeble kind, and reveal a low standard of morality among the Chinese gentlefolk of the time.

I must conclude this review of a thoroughly readable book by remarking that these poems and stories contain hardly a single reference to religion; and can only conjecture that these old time authors, and presumably their contemporaries, had no idea of any personal religion or responsibility to a Divine Power for their daily life and conduct. They must have been Epicurean philosophers pure and simple. Whether the modern Chinaman has changed in this respect I cannot say, but I rather doubt it.

R. H. C.

*The Making of Humanity.* By Robert Briffault. Allen and Unwin.  
12/6 net.

MR. BRIFFAULT sets himself the task of studying the progress of humanity, and has produced a book which on the whole is quite interesting. It is brilliantly written, but at times he is needlessly verbose, and thus hampers the flow of the argument. The book is divided into four parts. In the first part the author deals with the means and tasks of human evolution. The second part is concerned with the genealogy of European civilisation. The third part deals with the evolution of moral order. The last part comprises a brief "Preface to Utopia."

Mr. Briffault has great faith in evolution, and though he is painfully conscious of the shortcomings of humanity in the past as well as in the present, he has the courage to maintain that somehow there has been a steady progress. "The progress of evolution has not been preordained and planned," he says, "but groping and fumbling." The measure of progress he finds in the development of rational thought, and in it he sees the salvation of the future. But nowhere in his 370 pages does he succeed in showing exactly what rational thought is, unless it be defined as what Mr. Briffault considers to be rational. He is clearly not enamoured of theological dogma, nor does he make a fetish of science and scientists. What he pleads for is intellectual honesty and justice (p. 336). But he himself labours to prove—and succeeds in proving—that mere intellectual honesty or honesty of conviction is no guarantee of morality, and the conceptions of justice differ among different nations and different churches. To the Catholic bigot the prosecution of Galileo and the massacre of St. Bartholomew's day were—and perhaps are—alike just, while the justice of Lenin and Trotsky is not the justice of Lombard Street, or Fleet Street. The whole question of justice

is infinitely more complex than the facile optimism of Mr. Briffault seems to admit. But he is nothing if not dogmatic, and it is the defect of the book that it offers no positive constructive argument for his main thesis. It only produces such sentences as—"The only measure of worth of which nature takes any account—by perpetuating it—is the contribution offered towards the building up of a higher humanity" (p. 352).

If the book is palpably weak on its philosophical side, it is most suggestive and interesting on its historical side. Part II traces the development of civilisation from the earliest ages till our day. He characterises the great Oriental civilisations as essentially theocratic, a judgment which most people would accept as substantially correct. But it takes one's breath away to come across such a sentence as this on p. 115, where, speaking of the East he says: "We look in vain in all their achievements for a ray of clear thought that can strike a responsive note in us, and make us forget for a moment the interval of time, and the difference between East and West. And that desiccated, aborted world has lived on its mummified life through the ages, in senile infancy, for ever incapable of growth." This in spite of Japan's achievements and India's awakening! So far as Mr. Briffault is concerned, Max Müller and other orientalists might as well not have lived at all. But ignorance has its privileges.

The debt of Greece to the Orient is acknowledged, but Greek Civilisation is justly exalted as the one civilisation which resisted the fascination of a theocracy, and faced the problems of life and the universe in a purely rationalist spirit. It is also refreshing to note the author's enthusiasm for the great Saracenic civilisation. He does not hesitate to assert that the intellectual rebirth of Europe after the barbarism of the Dark Ages took place in Moorish Spain, and not in the Italy of the Renaissance. He is perhaps unduly harsh against the whole Renaissance movement. Speaking of the Renaissance scholars he says: "They were arid pedants, grammarians, translators, imitators in whom all faculty for thought had become atrophied. Imitation, mere imitation, and still closer imitation was for them the highest ideal." He regards the great Leonardo Da Vinci and Michael Angelo as exceptions, but it is hardly fair to evaluate an epoch as weak and evil after leaving out of consideration its choicest spirits. In contrast to the flippancy and the blind worship of the past which in his view characterised the Renaissance, he emphasises the pure scientific spirit of Moslem culture, and declares that "Roger Bacon was no more than one of the apostles of Muslim science and method to Christian Europe" (p. 201). He even concedes the Moslem superiority to Greece in the domain of science. He traces

the greatness of modern European civilisation to its being a synthesis of the speculative genius of Greece with the observant scientific spirit of the Arabs. He attributes the ultimate failure of Moslem culture to its theocratic foundation, while he makes no secret of the belief that Christendom has been Christian only in name, and that the greatness of it is due to the background of Greece and Rome.

The "Preface to Utopia" in spite of its arresting title is very tame. It expresses a hope that the future will be more and more rational, and that this end will be attained more and more through a system of education "in which the pupil shall become accustomed to the meanest task and to the highest thought, in which the only meaning of human equality shall be realised—equal opportunity of free development to all" (p. 370). If this is Utopia, it is a very modest Utopia, for it asks for nothing impossible.

Altogether Mr. Briffault's book is very entertaining. His mastery of history is great, and his historical allusions most illuminating. His very dogmatism is relieved by a broad cheerful outlook on life. But he who will expect to find in it any real thought philosophically presented will be grossly disappointed.

A. R. W.

*Britain and Greater Britain in the Nineteenth Century.* By E. A. Hughes, M.A., Cambridge University Press. 5/- net.

THIS short history of Great Britain is a further addition to the already overwhelming number of text-books and monographs on the various aspects of this eventful century in the history of the British Empire. But this does not take away anything from the usefulness of this little book. It is as the author proposes "a book which will be suitable not only to the upper forms of schools but to the general public. It is not merely a text-book for examination candidates." It is in two parts, part I giving the history of Great Britain and Ireland and part II that of the self-governing colonies, British India and Egypt. Part I proceeds on the topical method, and the narrative is clear and entertaining. Chapters III, IX and X are particularly interesting, devoted as they are to the social and economic history of England. The concluding chapter of the book deals with the problem of Imperial Unity, but in a rather sketchy way.

The book is written throughout in a simple and useful style, and will be useful to the student as well as to the ordinary reader. "The nineteenth century saw an increase of democracy, of personal liberty and

of social well-being," and the story of such achievement in Britain and the self-governing colonies will be of special interest to the Indian at the present day when all India is striving towards the same goal.

S. V. K.

*The Making of Modern Wales.* By W. Llewelyn Williams. MacMillan & Co. 6/-

WITHOUT the aid of his name and title one would quickly arrive at the fact that the author is a lawyer and a Welshman.

He dwells with much knowledge of detail on the constitutional and legal basis of the making of modern Wales, and his treatment of the fortunes of Wales and Welshmen is profoundly sympathetic, while he has a generous admiration for the Tudor king, Henry VIII. But his very obvious patriotism in no way mars a levelness of judgment which is as rare as is the true historian.

Mr. Williams endorses the opinion of Stubbs that Henry was a man of "light and leading," but also of "stratagems and surprises"; it was perhaps this combination of tendencies that led that remarkable ruler to grant to an oppressed and lawless people "all and singular Freedoms Liberties Rights Privileges and Laws," and at the same time to rob them of their language and religion, and to dispense with their traditional customs. However, as the good results of his policy appeared at once and the evil only by degrees, Henry has always been regarded as a benefactor of Wales; and there is no reason why his daring expedient of granting self-government to the "Welshery" should not have carried its lesson for later administrations that have had to deal with subject nations.

Much space is given to the Court of Great Sessions established by the Act of 1512,—the details of its powers and the strength and weakness of its executive. But the most interesting chapter is that on the Reformation—with its sequel on Nonconformity; and after reading it one begins to understand how in later times the name of Welshman came to be associated with a narrow intellectual outlook and a crude fanaticism, and how the soul of a people may sometimes be lost through the caprices of kings.

The soul of Wales was not lost, but it was cramped and stunted, for the sources of its development were withdrawn; and the people whose peculiar gift is song, and whose second nature was religion, can show no outstanding names in art or literature, and gives expression to its Celtic fire in a Welsh Revival Meeting!

Wales *has* her poets and her writers—of no mean order, as Mr. Williams shows; but the names she cherishes are those of men, of mighty spirit indeed, but without the traditions of a culture which had been theirs had it not been for the years of darkness to which their country was condemned by the dicta of a great statesman and unprincipled man.

But the Welsh language still lives, and the Welsh spirit is full of vigour, and there is Welsh genius and scholarship enough for the beginnings of the work of restoration; and one day, in addition to the wealth and order that began to be established in the reign of Henry VIII, Wales will have the great traditions and great culture and great literature that should be the rightful inheritance of this “old and haughty nation.”

Lost years, however, can never be replaced, and the sad thought that remains when this book has been laid aside is the thought of the Wales that might have been.

## X.

*Principles of Political Economy.* By T. N. Carver, Professor of Economics, Harvard University. Ginn & Co.

SOME one has made the cynical remark that there comes a time when every teacher of a subject feels it imperative to relieve his soul by writing a text-book. Otherwise it is not easy to account for the extraordinary number of text-books on Economics that appear every year, showing no freshness of thought and treatment or distinction of style. The work under review belongs to a different class altogether. Professor Carver, who holds one of the Economics chairs at Harvard, is one of the most distinguished Economists of the day, and his little book on the Distribution of Wealth is almost a classic, while his Essays in Social Justice and Principles of Rural Economics are also well known to students of Economics. Professor Carver's writings have been characterised by a remarkable clearness of exposition, a quality equally prominent in the *Principles of Political Economy*. The work was written during the years of the war, as the general tone as well as specific passages bear ample testimony. In the most interesting chapters of the book, those on consumption, a vigorous plea for economy in consumption in the interests of military efficiency concludes as follows: “Even those who are somewhat usefully engaged may be consuming such expensive products, and may require so many servants to wait upon them, as to use up more man power than they replace by their own work. As a mere exercise in patriotism, therefore, every

mature person should ask himself seriously whether the country is the gainer or the loser by reason of his existence, whether the man power required to produce for him and take care of him is not greater than the man power which he contributes to the nation's fund of productive energy by his own work. The importance of this consideration is peculiarly clear at the moment when this is being written (December, 1917), when all the liberal nations are at death grips with a military autocracy whose limitless ambition threatens to overwhelm the democratic world. The necessity of conserving every ounce of our man power is upon us. We see clearly now that any one who is not usefully engaged is a menace rather than help to us in the struggle. The food alone which such a person consumes is acutely needed, to say nothing of the man power which he requires in other ways. Even those who are usefully engaged ought to feel that luxurious consumption on their part is an interference with the plans and purposes of their country. To consume unnecessary luxuries is to require an unnecessary quantity of man power to produce for us. This is little short of a crime when that man power is so intensely needed for the trenches, for the war industries, and for food production."

Such passages as well as others where there are "expressions of sentiment or desire in the optative mood" make the book very interesting reading to the general reader for whom the book is primarily meant, but it is very doubtful if the book is suitable for use as a text-book in colleges. Not only are important subjects like Money, Banking, Foreign Trade dismissed in a few pages, but the popular character of the work has also required omission of all reference to topics like Quantity Theory of Money, Bank Rate, and Foreign Exchanges, which form the staple of a college course in Economics. The book will be, however, a very useful supplement to the usual text-books, not only on account of its freshness of treatment, but also because the chapters on Productive Industries and Consumption of Wealth supply information and points of view not to be found in similar works.

The usual account of the factors of production and their organisation is followed by an illuminating account, sixty pages long, of various groups of industries—Extractive, Genetic (by which are meant "those in which men make conscious and systematic efforts to direct the biological processes of reproduction so as to increase the supply of desirable plants and animals," the typical being agriculture), Manufacturing, Transportation, Commerce, Personal and Professional Service. The chapters on Consumption, apart from their bearing upon war economy, constitute a useful contribution to the ethics of consumption, and supplement

Dr. Marshall's chapters on the theory of Wants. The contrast between those that save and those that spend in excess is expressed both in graphic language and in a formula,— “ If a people chooses to follow the example of those cities of the past that became great and left something to show that they once existed, it will merely be choosing to consume from day to day, and from generation to generation, less than it produces, in order that a part of the productive energy of each generation may build for the future. That spells progress. If it chooses otherwise, it will never leave anything to show to future generations that it once existed, much less to justify its existence. The life history of its citizens could be briefly summarised in these words: They were born to breed and die, like the insects of the hour, generation after generation, in endless and unprofitable repetition.” The formula referred to is  $V=P-C$ , where V stands for value, i.e., the value of the man; P stands for his production; C for his consumption. The value of V will be negative when his consumption exceeds his production. “ He is a drag on progress, and the world will at least save his victuals when he leaves it.”

N. S. S. R.

*Nelson's History of the War.* By John Buchan. Vol. XXIV. Thomas Nelson & Sons. Two shillings and six pence net.

THIS is the concluding volume of Mr. Buchan's remarkable and able history of the Great War. As a contemporary chronicle of the war it stands unrivalled. The work was begun in the early months of the war, and it describes events as they appeared at the time to an acute observer and an extraordinarily lucid writer. Necessarily, the work does not give the last word which has to be said on events which were in the making when the author wrote. Time was wanted to see the full results, and a retrospective history of the war has yet to be written. But as a contemporary chronicle Mr. Buchan's work will live for ever, and will be a source of information from which every historian of the war will draw. Mr. Buchan deserves the warmest congratulations on the completion of his arduous task. Although he deals with a complexity of details he has the gift of lucid description and of investing his subject with an interest which cannot fail to appeal even to the ordinary reader.

The volume before us is appropriately called “ Victory.” It deals with the last phases of the War, the capitulation of Austria, the surrender of Germany, and the Aftermath. In the Conclusion, the

author makes a successful attempt "to gather together the threads and present the struggle as it appeared to a contemporary looking back upon it after its close."

T. D.

*Tales of the Saints of Pandharpur.* By C. A. Kincaid, C.V.O. Oxford University Press.

THOUGH Mr. Kincaid is already well-known as the learned author of the popular "History of the Mahratta People," yet he is more widely known to the Indian school world as the writer of children's books, which are found in almost every English school in this part of India. His *Indian Heroes*, *Tales of Indian Epics*, *Tale of the Tulsi Plant* and *Deccan Nursery Tales*, etc., are generally familiar to the school-boy. He has now added to this interesting series the *Tales of the Saints of Pandharpur*, which present a brief account of the lives of such favourite saints as Namdev, Dayadev, Jayadev, Ramanand, Kabir, and Latif Saheb. It is an English translation of Mahipati's *Bhaktivijaya*, a book that has been rendered into several vernaculars of South India. In its English dress it is equally admirable. The style is very simple and chaste. The subject matter is so elevating that it is not possible to think of a better text-book for religious and moral instruction, which now occupies so important a place in the schemes of Indian educational reform. The book breathes a distinctly lofty spirit of tolerance which would help to banish, as nothing else can, sectarian bigotry and narrowness. The very fact that no distinction is made between Mahomedan and Hindu devotees is enough indication of the breadth of religious vision that it is the aim of the book to teach.

There are, no doubt, poetic and mythological elements which take the stories out of the ordinary life of mortals; but they serve best to kindle the imagination and the emotion of the young. And even when the age of reason asserts itself upon the youth, the study of these Saints will leave behind an impression sufficiently strong of the greatness of a life of godliness.

This is a collection of beautiful stories beautifully presented. It is eminently adapted for use in the lower forms of English high schools. The printers deserve every credit for the neat get-up. We heartily welcome this addition to the library of the Indian school-boy.

V. S.

*Exercises in Logic and Scientific Method.* By A. Wlfo, M.A., D.LITT.  
Allen and Unwin. 3/- net.

FORMAL Logic has fallen on evil days. Few care to regard it as the *sine qua non* of correct argument. But not its worst enemy can deny its immense cultural value. It is in this sense that Dr. Wolf's little book is bound to receive a warm welcome from all teachers and students of logic. He deplores the general insufficiency of "practice in the analysis of concrete arguments." He has collected a large number of most useful exercises. The practical value of these exercises has been very much increased by Dr. Wolf's resisting the temptation of giving cut and dried answers. Altogether the book ought to find a place in every school library, especially those of the Collegiate Schools in Mysore ; and it ought to be in the hands of every teacher of Formal Logic.

A. R. W.

*Les Gambusinos—Bermudes-el-Matasiete—Une Guerre en Sonora—Le Saltador* By Gabriel Ferry.

*Le Bal de Sceaux.* By H. de Balzac. Siepmann's French Series : MacMillan & Co.

GABRIEL FERRY, a manager of a marine insurance company, was prudent enough to know that his books, written as a pastime, would bring him no profit, and modest enough to know that they would be of no particular service to the public, or to students of French. Why the editors of the Siepmann's French Series have thought otherwise we are unable to understand. Surely no French master—finding dozens of murders instead of ideas and literary talent—will ever think of giving such books "to boys and girls for private reading or as term-extras."

To French professors who try to cultivate taste for healthy literature and to stimulate appreciation of literary art the perusal of "Le Bal de Sceaux" is particularly irritating. H. de Balzac is undoubtedly one of the greatest French novelists. Why have the editors of the Siepmann's French series selected "Le Bal de Sceaux" for publication ? Is it simply to prove the truth of their statement that "H. de Balzac may be reproached with his over-insistence on detail, his fondness for dwelling on the morbid pathology of human nature, his exaggeration in the delineation of many of his men and women, and the frequent lack of simplicity of his style ? "

J. B. A.

*A Geography of Asia.* By Joseph Martin. MacMillan & Co. 5/-

THIS is another volume in Macmillan's Series of "Practical Modern Geographies," and is similar in character to the *Geography of America* which was reviewed in the last issue of this Magazine. The chief aim of its writer has been "to show under what conditions men live in the various regions, and to bring out as clearly as possible geographical and political controls." Rigorous compression has, of course, been necessary, for the book is not a large one. In the case of Mysore, this compression produces a rather amusing result. Here is the sole reference to the towns of Mysore (if we except the mention of the Kolar Gold Field)—"Bangalore, a military station, is the chief town. Mysore and Seringapatam, now small towns, were the capitals of the two Sultans Hyder Ali and Tippu." Apart from its brevity, this is, of course, misleading. Bangalore is not itself a "military station." The coupling of Mysore and Seringapatam as "small towns" is distinctly comical. Surely even the briefest record might note that Mysore is the capital of the State and the seat of its ruler; and why, if only one other town is to be mentioned, should Seringapatam, now entirely unimportant and very much smaller than several unmentioned towns, be singled out for this honour? Revision of the Mysore section is certainly required. The book, however, is a most useful production; and it is copiously and admirably illustrated—with pictures as well as with maps.

Z.

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*Plane Trigonometry for Secondary Schools.* By Charles Davison, Sc.D.  
Cambridge University Press.

THIS book is apparently a companion volume to the author's *Algebra for Secondary Schools*, which has proved quite a popular book with students; and it is a welcome addition to the existing books on elementary trigonometry. Besides the topics usually covered by such books, the book under review includes chapters on De Moire's Theorem, Series, and Approximations and Errors, and thus suits the requirements of students who give up Mathematics at the intermediate stage and specialise in other branches.

There is not much that is particularly remarkable in the treatment of the subject-matter. There is however an innovation in the arrangement: the first ten chapters are devoted purely to the properties and manipulations of trigonometrical ratios of angles, their multiples and sub-multiples; and practical applications including even the solution of right-angled triangles are given in the next five. Such a rigid

grouping of chapters is not likely to create interest. The formula for the area of a quadrilateral in terms of three sides and the angles between each pair of them is an interesting one not usually given in other books. The chapters on Graphs and Solution of Equations (including graphical) are full enough; yet one would think that the subject of sub-multiple angles, which generally offers some difficulty to beginners, should have been more fully treated. The large number of *viva voce* examples are a feature of the book, and must prove useful in memorising trigonometrical facts and formulae. Considerable care has been bestowed on the selection and arrangement of the problem papers at the end of the book.

The author evidently presumes on the part of the student a previous knowledge of logarithms, combinations (p. 93), and the definition of a "limit" (p. 38). The absence of trigonometrical tables and an index of reference is likely to take away from the usefulness of the book. One would also like to see squared paper illustrations in the graphical portion of the work.

*Modern Geometry.* By C. V. Durell. MacMillan & Co. 6/-.

THIS is an excellent book. As the author informs us, it has grown out of his former production, "A course of Plane Geometry for Advanced Students, Part I." But it is not merely a reprint, for the spread of geometrical knowledge between the dates of publication of the two books, and the experience gained by the author in the meantime, have rendered so much alteration necessary that the later book fitly goes by a new name. The book contains eleven chapters, in which the properties of the usual geometrical figures are treated in full. Special mention may be made of Chapter V, which deals with "Vector Geometry and Statical Applications." Here we find an account of vector-multiplication, and an interpretation of the polar co-ordinates. In Chapter IV, on "Concurrency and Collinearity," appears that which distinguishes modern treatises on geometry from old works, namely the taking into account of the sense of a line. Mr. Durell does not burden the student's memory with innumerable propositions, but gives the essentials of modern geometry in sixty-eight well-enunciated theorems. The book abounds with most useful definitions and explanations of geometrical terminology. Again, some illuminating inferences are drawn from particular theorems, and certain propositions receive critical explanations. The proofs adduced are clear and simple; the author's statement in the preface that "clearness has been nowhere sacrificed for brevity"

is well justified. It is admitted on all hands that the most fruitful method of comprehending geometry consists in making our grasp of the theoretical principles sure by working a number of intelligent deductions based on those principles. Mr. Durell avowedly "attaches great importance" to riders; and his book is equipped with large collections of them at the end of all the important sections. Those of capital interest are printed in bold type, and hints are given for the solution of some which the author considers to be peculiarly hard. Mr. Durell has kept abreast of the times. With the rapid extension of scientific knowledge, the vital connection between the various branches has been more and more emphasised. Mr. Durell, therefore, does not hesitate to apply the method of one science to another. He gives algebraical and trigonometrical and even statical proofs for geometrical problems.—Perhaps the average student, for whom the book is evidently written, would have liked the propositions to be printed in bolder letters.

S. V. R.

## COLLEGE NOTES.

### MAHARAJA'S COLLEGE.

THE annual examinations, like other coming events, have cast their melancholy shadows before, as is evidenced by the anxious looks and pale countenance of most of us. All the societies of the college have ceased their activities, but the record of work accomplished is a good one. The Philosophical Association and the Sanskrit Association, though somewhat esoteric by their very nature, can report well-attended meetings and well-prepared papers. Since November last the Sanskrit Association has held six meetings. The secretary, Mr. S. Ranga Rao, is to be congratulated equally upon his enthusiasm and upon the success attending his efforts. Mr. G. Hanumantha Rao, the equally enthusiastic secretary of the Philosophical Association, reports—“The meetings were well attended, the papers were of a high standard, the discussions were lively, and the presidential remarks were instructive and inspiring.” We are glad to learn that the University Librarian, whose interest in philosophy is well known, has promised to deliver a lecture on some aspect of T. H. Green’s philosophy. We trust that the Association will also secure the sympathy of the University Registrar, whose work, especially in Indian philosophy, has already received wide recognition. “Last but not least” comes the Kannada Association of the College. Under the guidance of its Vice-President, Mr B. Krishnappa, Assistant Professor of Kannada, it has held about half a dozen meetings in this term, and fruitful subjects such as “The Dravidians and their languages” and “The Kannada dramas” were taken up for discussion. The secretary, Mr. A. Rama Rao, announces that the celebration of the anniversary is in contemplation. Though we do not wish to grudge the Kannada Association the pleasure of having a merry time of its own, it is but right to remind ourselves that anniversaries have a fatal tendency, in the case of associations, to get converted into “annual ceremonies” in the Indian sense of the term. While we are on the topic of debating societies, it is our duty to put in a strong plea for a Literary Association. In the pre-University days of the College we had a flourishing Literary Union which turned

out substantial work. It is somewhat surprising that, under more exalted conditions, such a union should be conspicuous by its absence. The M. A. Literature Class, which counts some of our best men on its roll, has a clear obligation in the matter.

We do not like to close these notes without paying our small tribute to the memory of two well-known old teachers of the College, whose loss we have had to mourn. Mr. T. R. Venkataswami Naidu, who was for a number of years Professor of Mathematics in the College, was noted for the sweetness of his disposition as well as for his command of his subject. His students will recall how Mr. Naidu paid, in his classes, as much attention to English as to his own special subject.

Mr. A. E. Adolphus, who was Professor of English in the College, was conspicuous for his industry and his outspokenness. It is true that his students did not all relish the daily task of writing to dictation pages of notes on "It" and "But." Nevertheless, the few that received these things with the enthusiasm with which they were offered, know how much they have to be thankful for. The complaints now constantly made regarding the literary and grammatical peculiarities of the average student's English, are an indication that a good discipline in grammar, however unpalatable at the time, is necessary. Mr. Adolphus, a true scholar, took the greatest pains and the most evident delight in expounding the smallest detail of his subject, and his students profited thereby.

C. R. N.

#### MAHARANI'S COLLEGE.

SINCE our last report, there have been quite a number of exciting events, making my work of giving news quite a pleasant task. The precious visit of Her Excellency Lady Chelmsford to our College, during the Viceregal visit to Mysore, was a great event for us, and College and School vied with one another in making the programme got up for the entertainment go with a swing,—which it did, according to the kind testimony of the visitors. A day's holiday in honour of the visit was granted us, and we were told that the portraits of Their Excellencies were very graciously promised as a memento of the visit.

The universal peace celebration, held from the 13th of December, next provided us with much pleasure and amusement. A "social" was held for us at the College premises; and after a sumptuous tea, many competitions were provided for the beguiling of a pleasant hour, and pretty prizes given.

The Debating Society was honoured with a lecture on Carlyle by Professor B. M. Srikantha. The Superintendent, staff and students of the High School formed a welcome addition to our own, and a thoroughly enjoyable hour was spent in listening to the interesting lecture. In connection with the Debating Society a Historical Section was opened by Sri U. Abhyambal, and at its first meeting Dr. Mookherji gave a very instructive and valuable lecture on the status of women in early India. It was specially appropriate and welcome to us.

The Christmas holidays came as a pleasant break after the selection examination, and we have resumed work with renewed vigour but much trepidation on account of the fast nearing examinations.

Two handsome tables and a set of chairs have made our Reading Room attractive, and as most of the magazines subscribed for are at last coming in, many of us spend our leisure minutes in pleasant reading. The Games Club is coming forward rapidly, and tennis is very popular, nearly all the girls taking part in it. Exercise and enjoyment are obtained, though there is but one tennis court for twenty students as well as the professors. We are longing to get to our own building and grounds so that we may be able to open courts for badminton and tennis and introduce other forms of out-door recreation.

C. D.

#### CENTRAL COLLEGE.

**Debating Society.**—Since the end of October 1919, when we commenced work, nine meetings have been held. At the first of these, the inaugural address was delivered by Swami Nirmalanandaji of the Sri Ramakrishna Mutt, on "Students and Religion." At the last two meetings public lectures were delivered under the auspices of the society. The first was by Mr. D. V. Gundappa, Editor of "The Karnataka," on "The State and the Citizen," on which occasion Rajasabhabhushana Dewan Bahadur Mr. K. P. Puttanna Chetty, C.I.E., presided. The second was by Mr. K. Sankaranarayana Row, M.A., B.L., Government Advocate, on "The responsibilities of young men of to-day." In the remaining six meetings the following subjects were discussed:—

- (1) Are women to be educated on the same lines as men?
- (2) Are the panchamas to be admitted into our public schools?
- (3) In the best interests of the country, is it necessary to do away with "caste restrictions" altogether?
- (4) Is it necessary to establish a poor law to prohibit public begging?

(5) Is History a science ?

(6) Is early marriage for boys and girls baneful to the prosperity of a nation ?

A new feature of the Society this year was the fact that membership was free to all the students of the College.

C. MAHADEVIAH,

*Hon. Secretary.*

**Karnataka Sangha.**—Since October four meetings have been held. On the 3rd of November Mr C. Mahadeviah, a student of the third year B.A. class, read a paper on the merits and demerits of Kannada dramas. In the month of February Mr. Mylar Jois read a paper on “Nandi and Prastavane” and Mr. M. R. Srinivasamurti, B.A., of the Education Office read a well thought out paper on “Shadakshari and his Rajasekharavilasa.” Finally, Mr. T. S. Venkannaiya, M.A., our lecturer in Kannada, read a paper on “What is *Sahitya*?” Rao Bahadur Mr. M. Shama Rao, M.A., presiding. At this meeting Mr. M. Venkatakrishnaiya of Mysore was present. We are happy to find that of late more and more interest is being evinced in the language of our country.

D. GURU RAO,

*Hon. Secretary.*

**Physical Science Club.**—Since October only two meetings have been held—one on the 21st of November when Mr. B. Narayana Rao, a student of the second year B.Sc. class, read an interesting paper on “Microscopic Life,” and the other on the 15th January, when Mr. R. Ramaswamy, a student of the third year B.Sc. class, read a paper on “Fixation of atmospheric nitrogen as nitric acid.”

R. RAMASWAMY,

*Hon. Secretary.*

#### COLLEGE OF ENGINEERING, BANGALORE.

As we sit down to pen a paragraph or two, our College has almost completed the third year of its existence. The great war has dispelled old ideas, and we are more and more inclined to believe that “James

Watt did more to make Britain what she is, than Burke, Carlyle or Mill." The development of our national industry being very urgent, we consider ourselves lucky to have come under a system of sound technical education.

It gives us immense pleasure to be able to announce certain excellent additions (though temporary) to our college staff. Mr. N. N. Iyengar, B.A., B.Sc., has been appointed to lecture in Electrical Engineering. Long before we received him in our midst, we knew him by reputation as a first-rate specialist in that line. Some of us know him also as one of the most distinguished students of the Central College. He has had excellent foreign training. The second addition is that of Mr. D'Cruz, B.C.E., who lectures to us on Sanitary Engineering and Town Planning. He is well known to the engineering world, and is the author of two or three books on engineering subjects. He has already won the affection of the students.

The need for a hostel of our own having been badly felt for a long time, some preliminary efforts have been made in the direction of buying utensils, of renting a good, sanitary building, and of estimating the cost of running a hostel. Matters have been carried so far that we hope for the coming into being of an Engineering College Hostel next July. The probable number of boarders in our hostel being naturally small (about 35), and rent in these days being abnormally high, the burden per head will be very heavy; in fact our estimate shows that each student will have to pay nine rupees towards establishment charges *alone* whereas a Central College Hostel boarder is paying about five rupees. Therefore we earnestly hope that the University will be able to make itself responsible for at least seventy-five per cent of the rent. Unless some such concession is shown, there does not seem much chance of an independent hostel being started for our College. No reference to our intended hostel would be complete without our expressing the greatest gratitude to our Assistant Professor Mr. S. Rama-swamy for his enthusiasm and indefatigable energy in the cause.

Our Principal's caustic reference, in the last issue, to the inactivity of our Association is most welcome, inasmuch as it is calculated to rouse attention and thought in us. In spite of his strong criticism we are not able, unfortunately, to record much progress. A paper on "Reinforced Concrete" was read, and the long-expected "type-written magazine" has made its appearance. There is no denying the fact that the association is still dormant: his hopes have not been fulfilled. This is not the place to examine fully the causes that have resulted in such inertia. Perhaps the members are over-modest.

We heartily congratulate Mr. C. Subba Rao on winning the junior championship cup in the recent tennis tournament. Though there is much gallant stuff in the boys of our College, the scene of our exploits is seldom the play-ground.

Mr. S. Raghavendra Rao went on an all-India tour to purchase appliances for our College. The workshop plant and the laboratory will be practically complete by next July. The extension of our college building is going on at a quick pace. Though books are being added gradually to our library, yet it is still small, and in this connection we may state that we want a librarian who shall have nothing to do but attend to the library.

During Christmas, the second year students went out on a geological tour to Mandya, T. Narsipur and other places, to find "sermons in stones." The third year civil engineers made flying visits to Hessaraghatta and Hoskote tanks to study the technics of earthen embankments, while the mechanical engineers have been taking advantage of numerous workshops and factories scattered over the city. Before Christmas, for about twenty days, the first and third year students were engaged in "survey practice" in the rough and hilly country far beyond the Basavanagudi extensions, and most of them camped out. During that period every student worked—nay had to work—rather late in the afternoon every day. But the weariness was not felt much, because firstly, when he started to work, "the morn, in russet mantle clad walked o'er the dew of yon high eastern hill;" secondly, when he was climbing a weary hill, he could charm it "with song, romance or lay;" and lastly, when he was returning to his camp, he felt that "there is a pleasure in the pathless woods."

The tutorial system has been introduced into our College recently and henceforward the intercourse between the teacher and the taught will not be confined to the class-room. Though we cannot enjoy all "the fortunate experience of the majority of the students that pass through Oxford and Cambridge," yet certain phases of the system may be fully developed, to bring us happy recollections of our technical college career in after-life.

As we are writing these notes, the students are busy preparing for their College Day, which is expected to come off before the College closes for the vacation.

UNIVERSITY ATHLETICS, BANGALORE (CENTRAL COLLEGE AND ENGINEERING COLLEGE).

**Cricket.**—The season began in July and practically ended towards the end of November. Our team had been weakened owing to some of our best men having left, but the amalgamation of the two colleges amply compensated.

We played in all 22 matches during the season, winning 11, losing 8, and drawing the rest. In the B.V.N. Rao Memorial Tournament we reached the final and lost narrowly to the Wesleyan Mission Collegiate High School. We took trips to Mysore, Channapatna and Chikmagalur, and played the teams of those places. We lost at Channapatna and won at Chikmagalur. At Mysore we were severely handicapped by the unavoidable absence of three or four good players, who were away on their geological tour.

The batting, the fielding and the bowling were uniformly good. But the college must try to keep up its old cricket fame. It only requires keener interest on the part of the players and regular attendance on the field.

Our thanks are due to the committee; and to Mr. Abdul Khader, B.A., a past student of the college, for his instructions at practice.

K. SESHA DRI IYER,  
*Captain.*

\* \* \* \* \*

**Football.**—We began the season with a few friendly matches with the regimental teams, in particular with the R.A.S.C. whom we met twice, both times achieving victory. We played a number of other matches with local teams. Mostly we won, though occasionally we drew and once or twice we lost.

Towards the end of September the Anantapur College brought a team here and played a match against us, and unfortunately the visitors lost the match, 3—0.

We took trips to Mysore, Channapatna and Chikmagalur. In Mysore we lost one match out of the two played, and in the other places came out successful.

In our own tournament here we reached the semi-final, and lost 1—0 against the Bangalore Champions. At present we are playing friendly games, and we hope to continue in the same strain up to the end of the term.

G. N. ANNAYA,  
*Captain.*

\* \* \* \* \*

**Hockey.**—We have had a very good season this academical year. Hockey has become more popular than ever, and the players have shown a very keen and continued interest, and much improvement in the game. We played thirty matches, in about half of which we came out victorious. We drew in eight matches and lost in six. We lost in the Dasara Hockey Tournament, Mysore, against the M. C. C. Our team was not fully representative, some of the players having gone on geology and botany tours. The team was in very good form at the end of the year.

During the year the team suffered under several disadvantages, the chief being the want of a good hockey field. We hope that the authorities concerned will supply this long-felt want.

One special and noteworthy feature of this year consisted in the visits paid to us by outside teams. The Anantapur College played us in the month of September, when the College won by three goals to none. The visitors played a good game. In December, for the first time, the Mercara Central High School team came to Bangalore. They played two matches with us, in one of which the college won by two goals to one, the other being a tie, one goal all. We had much to learn from them, and we hope that they will come every year. It is rather unfortunate that we were unable to meet the team of our sister institution of the University, the Maharaja's College, Mysore, though we ardently looked for an occasion till the end of the year. We were hopeful when there was a rumour that they would come here during the Christmas vacation, but we were disappointed. We hope that from next year onwards the meeting of the sister institutions in field games will be a permanent feature of the academical year.

J. P. DAVID,  
*Captain.*

\* \* \* \* \*

#### UNIVERSITY SENIOR SCOUTS, BANGALORE.

A troop of Senior Scouts was formed from among the students of the Engineering College and the Central College early in January with 104 scouts on the roll. The keen interest evinced by the principals and the professors of the colleges has meant much to us.

The scouts are divided into three sections, specialising in ambulance, signalling and cycling respectively. Three students who were trained by the Director of Boy Scouts, Mysore, are in charge of the sections; and a managing committee governs the general policy of the troop. The main activity of this term is that of training in First Aid. Captain S. Doresamy, I.M.S., is giving the lectures. Our grateful thanks are due to him.

It was decided to open and fit up an ambulance station in the Central College for use by scouts ; and a variety show was given in aid of it by the University Scouts on the 17th of February, in the Government Collegiate High School, under the presidency of Mr. K. R. Srinivasiengar, M.A. Mr. Metcalfe made a lively and encouraging speech, and Mr. K. R. Srinivasiengar delivered an address on the essential features of the movement.

The net proceeds of the show were made the nucleus of a fund for the ambulance station.

M. SRINIVASA RAO,  
*Officer in charge.*

## SCIENCE NOTES.

*Science teaching in the early stages.*—At the annual conference of Educational Associations held at the University College, London, in January last, one of the subjects discussed was the teaching of science in the early stages. Major V. S. Bryant considered that science in preparatory schools should be part of the whole teaching and not segregated. In the discussion the conclusions arrived at were:—To avoid so called “practical measurement;” to stimulate the boys’ interest, and that not less on the biological than on the mechanical side; to avoid restricting natural history to biology; and to give adequate attention to the teaching of English.

Another subject was the divorce of laboratory and class-room courses. Sir Richard Gregory’s paper was mainly a reaction against the idea that the only science teaching of value is that given in the laboratory. This view has led to the neglect of those sciences which do not lend themselves to experimental treatment, and hence the undue prominence given to Physics and Chemistry. Laboratory work should not merely be exercises in measurement, but also deal with subjects which cannot be treated in any other way. Laboratory work is intended to give an idea of scientific method; class room courses should give a broad survey of scientific facts, principles and achievement.

## NATURE.

*“The Scientific American’s” review of the progress of pure science during the year 1919.*—The pure physicist and the astronomer have collaborated during the year to effect the final step in what appears to be the overthrow of the classical ideas as to the nature of the universe. We shall say something about the Einstein theories; anything like full discussion would, of course, be impossible here. We must define the Einstein doctrine to the extent of saying that it makes the numerical values of all phenomena depend upon the velocities of the bodies involved; that for the special case where these velocities are small compared with

that of light (the special case including the planetary velocities), the new doctrine reduces to the Newtonian system, but that for velocities comparable with that of light—velocities which the recently acquired ability to investigate the sub-atomic world has actually laid open to our observation—things turn out so differently that we are forced to conclusions that shock our common sense, trained as this is in the old way of thinking. Mass and dimension are not constant, but change as velocity changes; time itself is not the same everywhere, but is a function of space, and neither time nor space nor force nor matter has any independent values, but all are bound up with one another and are as meaningless without each other as is velocity without time. There is little remaining doubt that we shall have to accept all this.

The astronomer has pushed his inquiries into the distances, brightness and motions of the stars, and by the most ingenious of deductions tells us that the visible universe is at least 300,000 light years\* in diameter; that Rigel, the giant among stars so far as is yet established, is 12,000 times as bright as our sun; that some of the stars are demonstrably at least 10 million years old. Observations of several astronomers seem to indicate that the moon is not totally dead but possesses something which answers in a way to the definition of vegetation.

THE SCIENTIFIC AMERICAN.

*Beware of the tooth-brush.*—The great prevalence of decayed teeth among the Anglo-Saxon peoples and to a less extent among the white races is notorious and has been ascribed to many causes; but, in the opinion of the writer of this article (who is an Anglo-Saxon), without sufficient consideration. White wheat flour seems to be the most popular ascription in the medical press, such flour being considered specially favourable to the growth of organisms in dental caries. How then, it may be asked, do races which live on white flour, such as several peoples of Northern India, possess such beautiful teeth? The eating of soft cooked food is another alleged cause. Why then do not the people of South India, who live almost entirely on soft boiled rice, suffer as the Anglo-Saxons do? National degeneration is yet another supposed cause, which must be dismissed in view of the fact that physically and mentally this race is certainly stronger than many other races and tribes whose teeth remain almost perfect until old age. The same may

\* "One light year" means the distance which light, travelling at the rate of 186,000 miles per second, would cover in one year.

be said of sugar, alcohol and tooth-picks, which are used not only by peoples with bad teeth. Moreover, the teeth of the British race were not always so much affected as at present—witness the evidence of old skulls. Apparently then, the cause or at least the principal cause of dental caries should be something which has been introduced only recently. Why not (for a working hypothesis) the tooth-brush, which is chiefly employed by the Anglo-Saxons, less by some other white races, and not at all by most Africans, Indians, etc., who clean their teeth by rubbing them with chalk or dust disposed on the forefinger, or with bits of green and soft stick.

Of course, there is a large literature on dental caries; but the writer has not seen the tooth-brush accused in it. It is an unnatural instrument likely to damage the teeth and not very effective for cleaning the interstices. The following is possibly a sufficient process for the toilet. The gums and teeth are massaged with the forefinger, on which a little Vinolia tooth-paste or similar substance has been smeared, and the teeth are then rubbed thoroughly, but lightly, with dry camphorated chalk powder taken up on the moistened middle finger, the mouth being well rinsed, of course, with that cheap disinfectant—water.

Whatever may be the cause of caries, the discovery of the cause would be an enormous boon to humanity.

#### SCIENCE PROGRESS.

*Important iron-ore discoveries in India.*—The growing importance and prospects for the development of the iron and steel industry of India have for some time past made the question of the future supply of iron ore one of increasing seriousness. So far as the general public are concerned, the known supplies of iron-ore have not been on any great scale, and in consequence the discovery of what are apparently very large deposits of high grade ore in Orissa is one of the most important and satisfactory developments which have been recorded in the history of India's mineral industry. The general impression is that the discovery will prove ample for any requirements which are likely to arise for a long time to come, and may easily turn out to be enormous. These resources, in combination with the supply of cheap coal in the same province and the low cost of labour, offer India enormous advantages, as compared with the economic difficulties which face the great producers of Europe and America.

Some new iron-ore deposits are owned by the Bengal Iron and Steel Co. at Pansira Buru and Buda Buru, in the Saranda forests of

Singhbhum, near Manharpur. This discovery may be destined to rank as an epoch-making discovery in the history of the Indian iron and steel industry. With these deposits as a starting point subsequent prospecting has led to the discovery of what appears to be a range of iron-ore, rising to heights of 2,000 to 3,000 feet above sea-level, *i.e.*, roughly 1,000 to 2,000 feet about the adjoining valleys, and running almost continuously for 40 miles in a S.S.W. direction from near Pansira Buru.

"An officer of the Geological Survey of India has been detailed to make an examination of the whole iron-ore range, and if his examination and the results of future development work confirm the present ideas as to the magnitude of this discovery, it is evident that India may be regarded as provided with reserves of high grade iron-ore commensurate with as large an expansion of her iron and steel industries as may be justified by the requirements not only of India, but of surrounding eastern markets."

THE MINING JOURNAL.

## THE MARCH SENATE MEETING.\*

By THE EDITOR.

MUCH of the business was of a routine character, but several matters which had been the subject of long debate were at length definitely settled, and by majorities so substantial as to leave no doubt as to the view of the University. We are not writing a report of the meeting, but simply referring to the more important topics; and we shall not keep to the order of the Agenda.

*The budget.*—In moving the adoption of the budget, Mr. N. S. Subba Rao, in a closely reasoned and calculated speech, endeavoured to prove the necessity for a larger government grant, if (apart from extension of activity) the present courses were to have their necessary development.

Dr. Mylavaganam sought permission to move a large number of amendments, of which notice had not been given. In almost every case this permission was refused by the Senate. But Dr. Mylavaganam evidently was not so much interested in these amendments in themselves, as in (1) gaining more information than had been supplied and (2) emphasising the view that the senators, before discussing the budget, should be in possession of more detailed information.

*Honour courses.*—In the universities of British India, honour courses begin after the Intermediate course. It had long been debated, by the Senate and by a specially appointed committee, whether in Mysore they should begin at the corresponding stage—that is, after the first-year examination. A number of the members of the Senate were in favour of making honour courses post-graduate. The “concurrent” course would be of three years, the post-graduate of two. The committee had been divided on this point, a small majorityavouring the “concurrent” course. (At the October meeting of the Senate, differentiation in this regard between arts and science courses had been suggested

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\* It was hoped that the Magazine would be issued before the Senate meeting, but this being impossible we have the unexpected opportunity of recording the meeting. This record, unfortunately, crowds out the “General Educational Notes,” but seemed of greater importance.

and had found some support, but the committee found the idea undesirable.) At the present meeting there was an interesting debate on the subject. Mr. Usher urged the view of the minority of the committee that honour courses should be post-graduate because of (1) the great practical and financial difficulties involved in the "concurrent" scheme, (2) the loss of general culture involved when complete specialisation in science began so early, and (3) the impossibility (as it seemed to them) of selecting, after only one year of study in the university, students fit for an honour course. On the other side it was held that difficulties of accommodation and finance were exaggerated, and could well be overcome, and that it was unfair to the student to place his graduation in honours a year later than in other universities. By a considerable majority it was decided that *both* the "concurrent" and the post-graduate course should be instituted (in both arts and science). The decision is a kind of compromise—and one, of course, that raises the difficulty of accommodation and finance to its highest power. Further, certain of the professors, holding that the "concurrent" course is disadvantageous to the student, and holding also that fit selection is impossible at that stage, will presumably be very chary about recommending admission to the "concurrent" course, when a post-graduate course is available. We look forward with the greatest interest to seeing how, if sanctioned, the scheme will work. Possibly either plan would have been more workable than a compromise which certainty has embarrassing features.

*The training of teachers.*—Another most controversial subject was that of the training of teachers. This is recognised as one of the most important duties of the University, particularly in view of the efforts now being made both to spread education more widely and to secure a higher standard of teaching.—There were two main points for decision—(1) whether this training should begin during the B.A. course ("Education" becoming a B.A. optional), or, on the other hand, the course should be entirely post-graduate; and (2) whether a Teachers' College need be created or an "Education Department" should be added to the already existing departments of the Maharaja's College.

(1) Dr. Chinnappa proposed the introduction of "Education" as a B.A. optional, and suggested a syllabus. The man destined for the teaching profession was to take this course, and his training was to be completed by a post-graduate course of one year. Dr. Chinnappa found warrant for this optional course in the practice of British and American universities and in the recommendations of the Calcutta University Commission; and he considered such a course fully equal in

cultural value to the existing optionals, and therefore desirable even for men who did not seek the teaching profession. He desired close association between this course and that in philosophy, and the alliance was brought out in his scheme. He intended, however, the introduction of this optional in the Central College (where science subjects alone are taught) as well as in the Maharaja's College; while, as was later pointed out, his own scheme assumed no relationship to scientific studies, and its philosophic part could not be carried into effect in the Central College.—Mr. Rollo, in opposing Dr. Chinnappa's proposal, urged (1) that a course of the kind outlined by Dr. Chinnappa was quite beyond the capacity of the student at the stage of study for the B.A. degree, and would simply lead to unintelligent memorising; (2) that the proposed optional, comprising mere fragments of philosophy and history, had nothing of the disciplinary value of the existing optionals; (3) that the course, as outlined, would tend, as did so much of modern educational theorising, merely to remove the prospective teacher from the actual world of the child; (4) that few students deliberately decided upon the teaching profession at the beginning of their university career, and thus it is impossible to prescribe for teachers a course beginning at that stage; and (5) that only the Maharaja's College was really considered as a centre in Dr. Chinnappa's scheme, and thus no provision was made for those who would become teachers of science. Mr. Balasundaram Iyer had no objection to introducing "Education" as a B.A. optional, but pointed out that the course outlined made no provision for practical training. Mr. Bhabha also emphasised the paramount need for this practical training—and suggested the institution of a diploma in teaching for those unable to take a post-graduate course. Eventually a vote was taken upon the general proposal to institute "Education" as an optional in the B.A. course, and this was negatived by a large majority. Dr. Chinnappa's specific proposal thus fell to the ground.

The Senate thus reiterated the view which the University Council had already expressed on two occasions. The question remains—if Government accept this view, cannot something be done on the lines of Mr. Bhabha's suggestion? At the close of this meeting the Senate approved of a post-graduate course (both theoretical and practical) of one year, leading to the B.T. Degree. But there is a very great demand which may be satisfied by teachers who have not proceeded so far. It is quite feasible to institute a training course, mainly practical, which shall not be part of the B.A. course but which may be taken at the same time; and this might lead to Mr. Bhabha's suggested diploma in teaching.

(2) It was decided that for the present the post-graduate course in teaching might be given in the Maharaja's College. It was assumed (rather an unwarranted assumption, as Mr. Bhabha pointed out) that the number of students would be very small.\*

*The "tripartition" of the B.A. degree.*—There was little difference of opinion as to the desirability of Mr. McAlpine's proposal that the B.A. degree should henceforward be divided into three, instead of two, independent parts—English, Vernacular, and Optionals. This change has several results. (1) A student will have to obtain 40% in English and 40% in Vernacular : 45% in the one will no longer compensate for 35% in the other. (2) A student who fails in English or Vernacular will no longer have to present upon re-examination the subject in which he has passed. (3) A student will no longer lose a first class or a second class in English (or in Vernacular) through comparative weakness in Vernacular (or in English).

*The First Year Examination.*—There was unanimous support for the proposal by which the promotion examination at the end of the first year was divested of its fixed, statutory character and brought under the control of the colleges and professors concerned, while the First Year Certificate Examination remained a public examination, with programme fixed by Ordinance.

*Admission at the Intermediate Stage.*—It was made permissible to admit to the second year class students who had passed the Intermediate Examination in other Indian Universities.

\* May we—in an unobtrusive footnote—express disagreement here?—(1) The walls of the Maharaja's College are inelastic, and how these teachers' classes are to be accommodated in addition to the B.A. classes, the developing commerce classes, and the new honour B.A. classes, passes ordinary comprehension. (2) Mr. Denham would probably have said that a makeshift of this kind is worse than total neglect. He has frequently shown what a teacher's training ought to be, and shown that a separate institution, with a duly qualified principal of its own, a staff of its own, an organisation of its own, and (perhaps above all) a practising school of its own, is absolutely essential. Will the proposed makeshift produce either instructed or expert teachers? Those who supported it professed that the *ultimate* establishment of a separate Teachers' College was among their cherished ideals. But this is a case where nothing but the ideal pays at all.



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Contributions and books for review should be forwarded to the Editor, Mr. J. C. ROLLO, Maharaja's College Mysore.

# THE MYSORE UNIVERSITY MAGAZINE.

JULY 1920.

## EDITORIAL.

THE LATE VICE-CHANCELLOR.—The sudden death of Mr. H. V. Nanjundayya, the Vice-Chancellor of the University, and one of the most distinguished officers of the State, was a great shock to all who knew him ; and the University deeply mourns one who was closely associated with its founding and who, as its first head, guided it with the greatest care and wisdom through the difficulties of its first years. The University's tribute to him is pronounced in this Magazine by two of his oldest friends ; but even those whose acquaintance with him is of the most recent have been deeply moved by his loss. To such what appealed most in Mr. Nanjundayya was his extraordinary grasp of every detail of administration—fostered of course by a lifelong service in the administrative and judicial departments of the State—and his unfailing patience and kindness. He was a scholar, whose interest lay in many fields of study, but his chief enthusiasm was for the cause of oriental learning. He is mourned far beyond the borders of the State, but in Mysore a profound sense of personal sorrow gives poignancy to our regret.

THE CALCUTTA UNIVERSITY COMMISSION'S REPORT AND MR. DENHAM'S ABSTRACT —Mr. Denham's report upon the applicability to this University of the recommendations of the Calcutta University Commission has been printed, and is at present being considered by the University. To this matter we shall refer later, when the University has given its opinion. Meanwhile it may be remarked that in this book (it runs to 242 pages) Mr. Denham, after a brief but exceedingly

useful summary of the "Preliminary Observations" of the Commission and of certain important chapters in their "Analysis of Conditions," devotes himself to an analysis of the *recommendations* of the Commission as contained in Part II of the Report. A chapter is given to each chapter of the Report, and in each case, a summary is followed by a statement of Mr. Denham's view as to the relevance to Mysore conditions of the Commission's ideas. Mr. Denham's analyses are so complete and so lucid, and preserve so much of the "aroma" of the Report itself, that we feel he has supplied a need that is felt all over India. The report is so voluminous that many people who are anxious to acquaint themselves with its tenour are unable to tackle it; and the official summary contains little but the barest statement of topics and conclusions. Could Mr. Denham's work be published with the omission of the Mysore applications and with the addition of an index, it would be exactly what such people need. Further, it brings out with remarkable clearness the precise relationship of the recommendations to current practice in India, and shows what their effects will be. Thus it is of great value, both for interpretation and for the purposes of reference, even to those who have acquainted themselves with the five great volumes.

**THE CALCUTTA COMMISSION AND MYSORE.**—While the Report of the Commission contains many new suggestions that may profitably be adopted here, this University is probably more closely in consonance, already, with certain of the main principles of the Report than any other university in India. The "Analysis of conditions" has primary reference to Bengal, and is in certain respects entirely inapplicable to Southern India. The outside reader is apt to take it as an account of Indian education in general—a possibility that has given rise to a very natural indignation in Madras, where both men's and women's education has progressed much further than in the north. In Mysore the creation of a small, "teaching" university gave an opportunity for introducing certain reforms that already were in the air and that have found explicit recommendation in the Commission's Report. The University has been subjected to a certain amount of thoroughly ill-informed criticism, both in the State and outside; and it is of interest to Mysore people to note how favourably the Commission regarded it,—pointing to it indeed, time and again, as providing a model of innovations which they desired.

The following passage (Vol. III, p. 306) contains the main reference to our University.—"One outstanding instance of a new type of

university appealing to local patriotism is presented by the University of Mysore, which includes the colleges at Mysore and Bangalore, the former devoted to arts, and the latter to science, teaching. We visited Mysore and Bangalore at the invitation of His Highness the Maharaja of Mysore, and discussed the future of the new University not only with His Highness but also with the Dewan, the Vice-Chancellor, the Registrar, and the members of the teaching staff. The movement for the creation of the new university originated in a healthy desire to break new ground, especially in two directions. In the first place, the work of the first year of the old college course is to be conducted in a few specially selected high schools. In the second place, though, to the regret of some of the founders, it was not found possible to establish the University in a single seat, collegiate instruction, instead of being widely dispersed, is concentrated in Mysore and Bangalore, the question whether these centres should ultimately form two separate universities being left to future experience to decide. We believe that the foundations of the new university have been truly laid and that school boys and college students alike will benefit by the new departure." The two points referred to here are of the very essence of the Commission's proposals—first, the ruling out from the university course of such preliminary work as ought to be done in the schools; and second, the local concentration of university work as it cannot be concentrated in a university of the affiliation type. It is true that even Mysore has not gone to the full extent of the recommendations. It stipulates only one extra year at school, as against two; and its university is not completely "unitary," though there are only two centres and they are in the closest communication with each other.\* But the approximation is such as is not to be found elsewhere, the ruling idea has been the same as that of the Commission, and the resulting structure wins their hearty approval. Again, the University of Mysore is referred to as "the nearest analogue in India to what we propose for Dacca," while its example is pointed to with regard to such important matters as the giving to the teaching body "a large voice in the direction of academic policy," the recruitment for the staff of the best men available though they have to be sought far beyond the locality served by the university, and "the foundation of a University Union on the lines of those at Oxford and

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\* There is a considerable body of opinion in favour of making the University completely "unitary" by concentrating all its activities either in Mysore or in Bangalore. This may be impracticable, and the present arrangement, though it has its disadvantages, is not unsatisfactory, and entirely differentiates the University from the "affiliation" type. We hope to discuss the matter in a future issue.

Cambridge, as a general social centre for student life." "We saw," say the Commission, "an admirable institution of this kind at the recently founded University of Mysore."

But apart from direct references in the Report, we may be allowed to point out certain proposed reforms which have been, in some measure at least, anticipated in Mysore. One of the great advantages discerned by the founders of this University was that it would be, and would always remain, a small one. The Commission are emphatic as to the necessity of limiting the size of a university, when, as in Dacca, this can be done. They say they would rather have two small universities than one unwieldy one; and Dacca will provide an exceptional opportunity for genuine university work just because its university will be so small. Besides the advantages thus secured as to administration and teaching, the small university has little difficulty in approximating to the residential type. The Mysore idea, like that of Dacca, is that of the residential university. It is impossible in either case to secure the residence of *all* students in the university precincts; and indeed this is not achieved even in typical residential colleges such as those of Oxford, a considerable proportion of whose students live in lodgings. The growth of the hostel system, the providing within the college precincts of houses for professors, the centralising of every kind of activity in the college and its grounds, these are the ways in which we can carry out the residential idea in India, and these things are of paramount importance in the Mysore University. A related point is the proportion between the number of the students and that of the teaching staff. This is a most important matter in relation to tutorial guidance, and the Commission fix a "reasonable proportion" at one teacher to every fifteen or twenty students, though they concede that in Calcutta one to twenty-five is the best that can be achieved. In Mysore we have had hitherto one teacher to about ten students,\* thus gaining a remarkable opportunity for the adequate working of the tutorial system. Here we touch also the examination problem. The Commission, recognising that the written examination at the end of the student's course ought to be supplemented, and corrected, by a more direct and personal test, recommend *viva voce* examinations—particularly where foreign languages, such as English, are concerned. But even in Mysore the B.A. candidates this year numbered 200; and it may be assumed that a B.A. *viva voce* examination will always be

\* This year, with a considerably increased number of students, the proportion is slightly less favourable, but is nevertheless much more favourable than that contemplated by the Commission.

impracticable—except perhaps in “border-line” cases, where it would be particularly useful. The Commission themselves recognise this difficulty, and recommend that, before any attempt is made to introduce a *viva voce* test, a satisfactory tutorial system should be established, for this, among its other advantages, brings about individual knowledge of students by professors (who are also examiners), which can be taken into account at examination time. In the Maharaja’s College, at least, the tutorial system has been placed upon a firm basis; and though none but professors are entrusted with tutorial duties of the supervisory kind, the number of students is so small as to render possible real individual knowledge of each. Further, the recommendation of the Commission that the work done by the student during his course should be taken into account in finally assessing his value corresponds with the provision in the Ordinances of our University, that the students’ library and laboratory note books, countersigned by the professors concerned, shall be placed before the examiners, that records of class-work and of marks in class examinations shall be furnished, and that while in arts subjects a precise arithmetical value shall not be assigned to college work, in science subjects it shall be allotted one-fifth of the total marks in the case of the B.Sc. examination and one-sixth in the case of the B.A. examination.

While Mysore will have to go much further in the encouragement of oriental studies if she is to come up to the Commission’s ideas in this regard, yet she has taken two important steps. First, we have a professorship, not indeed specifically of Ancient Indian History, but of Indian History as a whole, and the incumbent, Dr. Radha Kumud Mookerji, is one of the most distinguished students of the Ancient branch of the subject. Apart from his activities in college, Dr. Mookerji has published research work the importance of which is everywhere recognised. And the institution of this professorship has led to the special enrichment of our libraries in the sphere of Ancient Indian History. In the second place, this University has gone much further than other Indian Universities in its encouragement of Vernacular studies, the study of Kanarese being continued throughout the B.A. course.

The Commission, in spite of agreement among expert witnesses that courses of lectures not followed by an examination qualifying for a degree would arouse no interest in Indian students, are keen on the institution of such courses, which help to broaden the student’s outlook, and divert his attention from the examination routine. In Mysore such a scheme of non-examinational subjects had already been prepared, and approved by the University. It has not yet been brought into

operation, since Government felt that at present the University was fully occupied. No doubt a new university, with its many complex problems, must move slowly, contenting itself at first with introducing what is essential, and courses of the suggested kind are too expensive to introduce without the certainty that they will be taken full advantage of. The principle however has been recognised here from the beginning, and these courses are ready for introduction when circumstances permit.

Again, our two Physical Culture Boards, one for Mysore and one for Bangalore, with their two Directors of Physical Culture, while they do not perform all the functions of the "Board of Students' Welfare" suggested by the Commission, are based on precisely the same principle—that of so organising games, physical exercise, and medical inspection and advice as to secure the best possible physical training for each individual student. This is a branch of university activity that presents more difficulties, perhaps, than any other, and it will take years of experiment before a system can be devised that shall profit each student while avoiding over-organisation of sport; but it is something to know that we are tackling the problem precisely in the way recommended by the Commission.

It is apparent, even from the correspondences which we have mentioned, that any innovations which the University's consideration of the Report may bring to our university system will not be grafted upon an alien stock. The founders of this university were enabled by circumstances to avoid the cardinal defects of older and larger bodies, and both in plan and in detail it so far conforms to the principles adopted by the Commission that any desirable modifications can naturally and easily be made.

EDUCATIONAL TOPICS IN THE REPRESENTATIVE ASSEMBLY AND THE ECONOMIC CONFERENCE.—THE OFFICE OF VICE-CHANCELLOR.—At the Birthday Session of the Representative Assembly among the most interesting and vigorous discussions were those pertaining to education. If there is anything in Mysore upon which public opinion is really and constantly busy, it is education; and the Assembly and the Economic Conference make this opinion articulate. Thanks to these institutions, there can never be any doubt in Mysore as to what the people really want, in educational as in other matters; and when parties differ in opinion, there is an admirable opportunity of frank public discussion, and of the justification of Government policy in so

far as it may conflict with popular ideas. Many a most profitable suggestion has emerged from these discussions; and many a time ideas have been clarified by them and closer unity achieved. Much of the enthusiasm which produced the Mysore University was generated in the Economic Conference, which continues to offer it the people's suggestions—some, no doubt, not feasible, but others eminently practical and useful. To some of the suggestions made at the recent Conference we shall refer later. First we wish to consider certain questions raised in the Representative Assembly.

One query sounded strangely at this time of day. It was asked why, if the Vice-Chancellors of British Indian Universities are honorary officers, the Vice-Chancellor of the Mysore University should be remunerated. What a long time it takes people to realise what a teaching university is. The prime justification of our severance from the Madras University was the idea of approximation, at least, to the unitary system—of such direct and intimate control over matters both administrative and academic as could not be achieved in a university of the affiliation type. The whole idea centres in the office of Vice-Chancellor, and the Vice-Chancellorship of the universities of British India corresponds at present in nothing but name. Even there, however, the Calcutta University Commission recommend the employment of full-time Vice-Chancellors; and the salary they recommend, Rs. 4,000 per mensem, is much higher than is dreamt of in Mysore.—It would be difficult to exaggerate the importance of the Vice-Chancellor's office. He must control every department of the University's work, is responsible for the smooth working of Council, Senate, faculties, boards and staff, must be conversant with every detail both administrative and academic, and must make those daily decisions upon which the consistency and efficiency of the University's work depends. "Upon his personality," say the Calcutta Commission, "may largely depend, for the time being, the success and failure of the institution as a whole."

**FREE UNIVERSITY EDUCATION?**—In the Representative Assembly there was a very vigorous and interesting debate upon the question of free secondary and university education. It was a real fight, for the assembly was divided into two camps of thoroughly convinced debaters. The reply of Government indicated that there was simply no chance of the carrying out of this idea for many years to come.—It will be recollected that the University Senate once gave its opinion in favour of the

abolition of university fees. It may be doubted whether, in the circumstances, that was the genuine voice of the university; and one is still more sceptical as to whether the present Senate would be of that opinion. At any rate, university opinion upon this matter is just as patently divided as opinion in the Assembly. A couple of years ago this magazine contained an interesting article by a supporter of the proposal. May we now give reasons for the belief that is in us that the idea, besides being impracticable, is unreasonable and unjust?

We have never seen a satisfactory answer to the question,—“Why should not higher education be paid for by those who can afford payment?” Rhapsody, of course, is no reply. “The best of God’s gifts are free—the light, the air, the beauty of the world; and the greatest of His gifts are knowledge and wisdom. How dare you impose your human taxes upon these?” This brings lyrical conviction, and lends a certain gratuitous fire to oratory,—but many of these best of things need human harnessing, and human labour must be paid for. Electricity costs a good deal before we have it in our homes, water before it comes from our taps, and knowledge surely ought to cost us something before it is adapted and imparted to us by State agency. And in fact the effect of the proposal is not to exalt but to discredit learning and culture. Very sensibly did *The Times of India* remark (in commenting upon the debate in the Assembly) that “what one may have for the asking is held cheaply by him who obtains it.” There are some who cannot pay, and yet are deserving. To such we must endeavour to give the necessary help. But to give higher education gratis to the well-to-do is simply to cheapen its value.

Further, the cost of administration and teaching must be met somehow, and in so far as it is not met by fees must be met by taxation. It would be quite all right were taxation merely an indirect means of payment on the part of those who benefit. But if university fees are abolished taxation will mean payment by the unbefited poor for the benefit of those classes who do send their boys to college. To this it is no reply that the rich pay taxes too, and bigger ones,—thus duly settling their account. As Mr. Banerji pointed out, the villagers at present contribute three to four lakhs for the upkeep of the aided schools. It is the abolition of such payments by the poor that is of prime importance. Their economic position is the pressing problem. If anybody’s burden is to be lightened it must be theirs, and every pie that they pay to the State, by way of any sort of taxation, is a reproach to the well-to-do man who receives free from the State that which is worth his payment.

Again, many essential departments of education are held up at present because the treasury is not equal to their demands. Does any one hear without conviction Dr. Mylvaganam's unceasing appeal for the establishment of a College of Medicine ? That is the most urgent need, but there are others of only slightly less importance. For the expansion of higher, as of lower, education there is an ever more insistent necessity, and the financial problem created seems well nigh insuperable. Candidly—is this a time for the suggestion that the funds available for education should be expended, in however small a part, to relieve those who need no relief ? It is the lamest argument that the total sum in question is small. Every anna matters in a question of justice.

The increasing of the number of scholarships is a very different matter. It is perfectly true that the large majority of students in Mysore are definitely in need of "help for the prosecution of their studies." The average income is so low that it is almost impossible to discriminate, in awarding scholarships, simply on the ground of poverty, and it has even been proposed that, in making awards of poverty-scholarships, the genuinely poor should simply be classed together and awards then made by merit. Mr. Banerji pointed out that 40 per cent of the students were allowed scholarships. One may well doubt whether any other part of India can match the generosity of this allotment. Yet among the other 60 per cent there are very many who have to undergo extreme hardship, and some have to give up the struggle. Everyone will agree that no student who is really fit to profit fully by a university course should be denied it. But the class-rooms of every university in India are full of people who have not this fitness. They ought not to be in college, and they incessantly hamper those who are rightly there, besides missing their own vocation. They have sought the college because if they did not they would have no career such as they aspire to ; and inevitably, and everywhere, the standards of admission have been adapted to them. The time has certainly come to change this—by so fostering industry that the man who has nothing in common with the learned or the professional may find a proper and a respected sphere. This great endeavour is being made in Mysore, and in time the University will not be regarded as the only avenue to satisfactory employment.

**PANCHAMAS IN GOVERNMENT SCHOOLS.**—The discussion which naturally evoked the greatest display of feeling was that concerning the admission of Panchama boys to schools. This policy has for some time

been definitely accepted by Government, and has been carried out by the Inspector-General of Education; and since its inception there has been continuous, sometimes violent, protest on the part of the higher classes in the State, who, agreeing that the uplift of the Panchama community is one of the most urgent problems of the day, nevertheless consider that this measure makes too sudden a breach with tradition, that association with Panchama boys is in several ways extremely disadvantageous for their sons, that the necessary reform would better be worked upon quite different lines, and, in particular, that education ought to be fostered among Panchamas not by their admission to the common schools but by the establishment for them of separate boarding schools. Here is a most intricate problem, and anyone who writes of it cannot but respect the sincerity of both parties—those who have fought long and strenuously for what they consider the only effective means of the mental and moral uplifting of “the depressed,” and those on the other hand who honestly feel that the measure amounts to a social outrage. It would be quite untrue to assert that the opposition of the latter class is a matter of “blind orthodoxy,” “unreasoning selfishness,” and the like. It has its roots in tradition, of course, but it is also related to experience. School life means very close association, and such association between boys of the higher and those of the lower classes, while enormously for the advantage of the latter, is not for the immediate comfort of the former. Eventually, no doubt, it will be exceedingly good for them, but there will be a good deal of repugnance in the early stages, until the Panchama boys have learnt the first lessons that association will teach.—Yet one cannot doubt where the right lies. “Every member who spoke on the subject,” remarked the Dewan in his concluding speech, “agreed as to the principles of social justice on which the order is based.” We believe that all classes in the State are one in seeking this “social justice,” and that if the opponents of this measure can but be convinced that it cannot be otherwise attained, and that this attainment involves no sacrifice greater than that of temporary inconvenience, they will welcome the inevitable change.

It is inevitable: there certainly is no other way. First, the idea of providing separate schools for the Panchamas would be disastrous for them *educationally*. It is obviously impossible for Government either to establish or adequately to “aid” Panchama schools of equal excellence with the general schools. There is no money for such duplication. The Panchamas would have to be content with inferior teaching and inferior surroundings, and that is not social justice. But

an infinitely more important matter is the association itself, and the principle which it involves. Will any one attempt to justify a perpetual class-cleavage, with its mutual isolation, distrust, antagonism? So long as these things remain a State cannot attain the full measure of its prosperity. It is cumbered in its progress and is bereft of half its energy. And as the State suffers so also does every class and every individual. The deprivations of the lower classes are obvious enough, but equally important are those of the higher. The benefits of association are not all on one side.

These facts are everywhere admitted, and among the higher classes, and among those members of the Assembly who opposed the measure of which we write, are men who have done sincere and devoted work towards this association. Only—they feel that a more gradual method would be better, that the present drastic measure arouses an irritation that is prejudicial to the cause. It was urged in the Assembly that time should be allowed for the growth of toleration, for the modification of public opinion, for such improvement in the habits of Panchamas as would make them fitter associates. And incidentally it was pointed out that Catholics and Protestants had separate schools, and that to certain European schools in India, Indian boys were not admitted. To take these incidental points first—Catholics prefer that their children should be educated separately because they conceive that there is a vital difference of religious doctrine and that this difference modifies all teaching, particularly that of history. Is there among Hindus any differentiation of this kind? Again, separate schools for Mohammedans are not desired. Are Mohammedans, then, more closely akin to the high caste Hindu, in point of religion, than the Panchama is?—And as to the argument from the separateness of schools for Indians and Europeans—are Panchamas, then, non-Indians?

But the central argument of the protesters is that for giving time a chance—for not “forcing reforms” but waiting till gradual influence brings about the desirable change. Has not Time been given, already, an age-long opportunity? Time, and slow influence, have indeed done something, but in matters like these there comes a crisis when human judgment, generosity and courage must make a definite and resolute decision. Reform can never be merely a gentle and continuous process—the forces that oppose it are too strong for that. At the decisive moment, when progress is revealed as actual conflict, it is a case of “now or never,” and genial influence must give way to resolute law-giving. How are the Panchamas to be “improved” if they are denied the chief means of improvement—“contact and association,” as one speaker

put it? It is indeed a great thing to give them economic help and encouragement, but that will never fit them for association with the higher classes: it is only the association itself that will do this. And as for "public opinion," the past is an adequate guide. Wait for universal approval and you will remain waiting for all time. "The opposition to the Order," said the Dewan, "was mainly based on the grounds of expediency, and of the unpreparedness of public opinion. . . . Gentlemen, Government feel that it is their duty to educate public opinion, and it is impossible for them to recede from the attitude they have felt called upon to take up." These are memorable and absolutely final words.—When public opinion is impregnable to persuasion wisdom must needs take it by assault.

Experience will speedily prove that this reform is the profoundest wisdom. The time immediately ahead is full of possibilities of intense irritation. It will take the utmost tact and forbearance on both sides to make things go smoothly. But good-will cannot but make this period much easier and shorter. Certainly no difficulty will arise that tact and sympathy cannot easily overcome. If the Brahmin school-boy is sent to school primed with indignation against this measure and contempt for certain of his school-fellows, there will be endless friction, and the uplift of those who so frequently are called brothers will be sadly retarded. But surely sympathy will prevail. If so, the period of irritation and discomfort will certainly be short. It will be a very different Panchama boy that will be coming to school a little while hence. May we not appeal to parents of the higher classes to grasp this unique opportunity for the service of society and their State—for the concrete realising of an idea of which they have so often dreamed, and spoken on the public platform? They cannot, in any event, stay the tide. It is flowing in every part of India. Those who resist this movement fail to realise that they are seeking to relegate Mysore from the position of a leader to that of a backward state. Already in British India no distinction of castes is tolerated in school-admissions. In a state usually reputed much more conservative than Mysore—Cochin—Government is pursuing, with a much less prepared public opinion, precisely the same policy as this. In that region the depressed classes are perhaps more "depressed" than anywhere else in India; but the Government has thrown open the public schools to them, and here is the Dewan's noble defence:—

"I have been asked: What is the motive of Government in pursuing this policy? My only motive is to make Cochin really great in the eyes of the civilized world. I wish to be able to tell a visitor to

Cochin, like Sir Narayan Chandavarkar, for instance, that in Cochin there is ‘a fair field and no favour.’ I do not wish to be obliged to conceal from him things which I feel cannot redound to our credit. If my object was only that of self-gratification, I could find it sooner by letting the depressed classes alone. No administrator who values his peace of mind or quiet life will take up the question of the depressed classes here. I know very well that if I left it alone, everybody—that is, everybody who is articulate—will be happy and I shall be happy too. But I feel that is not the way to serve Cochin. I feel what is to be sought is not the passing interests of the hour but the permanent prosperity and greatness of the State. And that can be done only by letting every class and community rise to the full stature of its manhood.”

THE ECONOMIC CONFERENCE.—A number of interesting and thoroughly sound educational suggestions were made at the recent session of the Economic Conference. Mr. K. R. Seshachar made clear the desirability of the establishment of a technical college in connection with the University, and calculated that the cost would be about twenty lakhs and the annual expenditure about three. Two suggestions with regard to school courses were made—one, by Sri K D. Rukminiamma, that training in instrumental as well as vocal music should be introduced, and the other, by Mr. Shama Rao, that “Civics” should be introduced and made a compulsory subject. The difficulty here lies in the overweighting of the curriculum. The desirability of having teachers of instrumental music in our schools, and particularly in girls’ schools, is obvious enough; but a real practical difficulty arises when one seeks to find a proper place for the lessons. Not all the pupils, by any means, can profit by them, nor can any part of the present course be elbowed out to make room for them; and for both these reasons it seems necessary to give them a place right outside the time-table. Certainly they should be a concern of the school, but they can scarcely become part of its eleven-to-four routine. As to “Civics,” it would undoubtedly be a very great advantage for pupils to gain, during their school-days, a clearer, more definite idea of the rights, obligations and opportunities of citizenship, and to have the light of history thrown upon these things; but here again there is the time-table difficulty and the fact, also, that instruction of this kind can quite well be given incidentally—and perhaps with more effect. It would be very difficult, too, to draw up a systematic course in this subject, and to expound it by way of “lessons”

would require gifts of a kind not to be met with in every school. We think that teachers, particularly teachers of history and of English, should be urged to make clear the implications of citizenship whenever their work gives them fitting opportunity, and that a few lectures, outside class hours, would supply all the systematising that is required.

SCHOOL GARDENS.—Few can fail to sympathise with Mr. M. Subbiah's campaign (culminating at this session of the Conference) in favour of "school gardens." He was convincing in his arguments, and definite in his proposals; and we believe that, in spite of difficulties, this is a really practical idea. Of great interest was Mr. Subbiah's detailed reference to what has been done in this connection in Ceylon—an extraordinarily vigorous and go-ahead place in all educational matters. It was in 1900 that the school-gardening scheme was initiated in Ceylon, which now boasts of 380 gardens attached to government schools, besides 95 attached to grant-in-aid schools. "The district school committees," said Mr. Subbiah, "are expected to provide land—about an acre—and the water supply, while the garden department provides them with garden implements and seeds." Altogether, these Ceylon school gardens cost about Rs. 20,000 a year. Of course there are many places in Mysore where difficulties of soil and of water would be great, but many schools are very favourably situated; and it is not much to ask that with some of these a beginning should be made, and that in the planning of new schools provision should be made for a garden. The idea is a very inexpensive one, and its many benefits scarcely require expounding.

A contributor to the *Times Educational Supplement* bases an interesting article upon a quotation from an essay by an elementary school girl in New Zealand, in which she thus describes the surroundings of her school—"In the front of it there is a flower garden and a lawn. . . All kinds of flower bloom all the year round, and they make the school look very beautiful. In the south-west a plot of half an acre is fenced off, and this is used as a vegetable garden. All the girls and boys of the upper classes have a small plot of their own. . . Our school is fenced right round by a barberry hedge, which is kept clean and neat in front of the gardens by the bigger boys of the school." No wonder the contributor is moved to write,— "Now, let anyone close his eyes and picture that school to himself; let him look at the boys and girls, and contemplate the possibilities in the way of health and happiness and sound educational method that are

offered. Then let him think of some of the schools that he knows in London, or in one of the great cities of the north, or even in the rural villages of southern England. . . . Anybody who knows the facts can see how foolish have been the arrangements for many village schools, with their tiny gravelled playgrounds and entire absence of school fields and gardens. However great may have been the errors which permitted congestion and the growth of slum areas in our cities, they have been equalled by those who planned the buildings and surroundings of our elementary schools. Now a new day has come. The conception of education has changed. Open-air teaching is demanded quite as much on grounds of educational efficiency as upon the prospect of hygienic advantage. The school garden and the playing field have become indispensable adjuncts of a first-rate school." We have realised the need for ample playing-fields; but it is indeed the case that a garden too, to be worked by the boys under the instruction of teachers who have added this competence to their training, is "*an indispensable adjunct of a first-rate school.*"

During the past year the Government of Mysore has been at considerable trouble and expense to foster the growing of fruit and vegetables in the State, particularly in the villages. Horticultural inspectors have helped the villagers with advice and loans, and by the supply of plants and seeds; and a large number of nurseries, orchards and gardens have been started, and over three thousand fuel and manurial trees have been planted. With very little difficulty the scheme could be made to include the encouragement of school-gardening.

**SCHOLARSHIPS.**—Even at a time of necessary and stringent retrenchment Government have no intention of diminishing the funds allotted for the education of the poor and the backward classes or for the training of such scientific specialists as will bring industrial benefit to the State. The difficulty has been to secure just and impartial distribution of the former, and such apportioning of the latter as will at once benefit the most deserving individuals, the most needy classes, and the efficiency of the various departments concerned. New regulations recently issued seek to solve these problems.

(1) *Scholarships for backward and depressed classes.*—The money available is allotted as follows: University, Rs. 10,800; Entrance, Rs. 8,400; High School, Rs. 24,000; English Lower Secondary, Rs. 27,360; Vernacular Lower Secondary, Rs. 14,400; Special Scholarships for the Depressed Classes, Rs. 15,000. These form the different

"grades." Within each grade (except that of the "Depressed Classes") allotment is to be made to the various classes (Vokkaligas, Lingayets, and so on) in proportion to population. Then the number of scholarships allotted in each grade to each class will be divided among the various districts and taluks according to the number of pupils belonging to that grade and class who attend school in these areas. (As regards the Depressed Classes, allotment is made merely by districts and taluks.) It is clear enough that perfect justice cannot thus be attained, for the division by population cannot take account of the comparative poverty of the different classes. The attempt, however, to balance one class against another in respect of poverty would be entirely hopeless, and it would be difficult to make any improvement upon the present plan.—Next comes the terrific task of allotment to individuals. During the three years since the Backward Classes Scholarships were introduced there has been much dissatisfaction about this. It can scarcely be denied that scholarships have frequently gone to boys who needed them comparatively little; and there has been not merely individual canvassing but class-canvassing which has considerably embarrassed the work of the District and Taluk Progress Committees, who hitherto have had the task of awarding the school scholarships. The university scholarships have been allotted by the University itself, and there at least there has been strict impartiality, but the matter has been one of extraordinary difficulty—first as to the emphasis to be laid on poverty on the one hand and merit on the other, and second (a much greater difficulty) as to the correct assessment of poverty. Even if a parent's income were the final test, the College Councils, which submit the allotment to the University Council, are quite unable to verify the figures given by the students. But income is nothing like a final test, and the complications that arise out of guardianship, size of family, the student's responsibility to his relatives, and so on are such as to drive one in despair to the idea of deciding by merit alone—though this has not actually been done, the Councils desperately grappling with the financial calculation. As to the school scholarships, a change is now introduced which may considerably improve matters. The distribution is now to be made by committees specially appointed in each district for this purpose. Each committee is to consist of five members, of whom one is the inspector of schools and the other four are local non-officials, chosen with the greatest care so as to secure at once complete impartiality and adequate local knowledge. These committees, let us hope, will really be able, by conscientious investigation, to award the scholarships where the need is greatest.

(2) *Foreign scholarships and deputations.*—Here the difficulty lies in reconciling three ideas—the providing of departments with the foreign-trained men that they need, the encouragement of the most promising graduates of the State, and the special encouragement of the “backward classes.” The first two ideas might seem substantially the same, but they differ because, this scheme for aid abroad being of recent institution, many of the men whose subsequent usefulness would best justify it are already in service. Government has issued orders upon the report of a committee appointed to submit recommendations, and the following are the main decisions arrived at.—Excluding loan scholarships, which come under quite a different category, there are to be four scholarships each year for study abroad. One of these will be set apart for a graduate of the Mysore University, to be recommended by the University Council. In accordance with the present educational policy—that of paying prime attention to practical utility and encouraging first of all the sort of training that will be technically and industrially profitable—this scholarship will be awarded preferably to a student taking up some branch of science. However sound this preference may be at present in view of the needs of the State and the impossibility of obtaining in India an adequate training of this kind, it is very earnestly to be desired that in time it may be possible to encourage scholarship equally with technical knowledge, and culture with practical usefulness. The student who is a scientific specialist is the greatest asset to the State in present circumstances; but in the nature of things the very ablest men, and those of whom the State will be proudest, are those whose interests lie in “the humanities,” and they suffer more subtly, but to an even greater extent, than the scientists by having their training confined to India.\*—Two of the other scholarships will be awarded “for the study of subjects which will be notified from year to year.” These subjects too, it may be presumed, will for some time be of a scientific character, since otherwise there would be no point in so defining the scholarship to be awarded by the University. Finally, one scholarship will be reserved for the “backward classes.”

If we read the order aright, men already in service will not ordinarily be eligible for these scholarships. A definite distinction is made

\* The Goverment of India award, annually, two “University Scholarships,” without special reference to science or industry. These Scholarships were originally created “to encourage Indian students to resort more freely to England for the purpose of perfecting their education and of studying for the various learned professions or for the civil and other services in India.” (The italics are ours.)—*Vide “Indian State Scholarships”* (Pamphlet No. 6, Bureau of Education, India), p. 3.

between scholarships and deputation allowances. The former are reduced in number that larger funds may be available for the latter. Apart from the deputation of senior officers of Government for special purposes, and the cases of those who proceed abroad on special leave or with the aid of loans, selected officers not exceeding five in number are to be provided with deputation allowances each year. Each will be given a sum ranging between £150 and £200 for maintenance during the period of deputation, fees, premia and travelling expenses will be paid, privilege leave will be granted where it is due and periods not covered by such leave will be considered as periods of special furlough on half pay, and the period of deputation will count towards pension, promotion and leave and will not prejudice leave or furlough already earned — This liberal scheme will make a world of difference to "family men" already in service, who hitherto, when the opportunity of going abroad was offered them, have found decision most difficult, since they must maintain their homes in India while supporting themselves abroad. It was a difficult thing to avoid piling up a debt that would encumber them for years. Such men will now be freed from the distractions of financial anxiety.

(3) *Technical scholarships to be held in India.*—Ten scholarships, ranging from Rs. 15 to Rs. 25 per mensem, are to be awarded in Technical Arts and Industries. They may be held in the Victoria Jubilee Technical Institute, Bombay, in the School of Art, Bombay, or in the School of Arts, Madras. They cover a course of three years, but their annual renewal will depend upon satisfactory progress, certified by the head of the institution concerned. Here again the "backward classes" are specially cared for: one-third of these scholarships are reserved for them.

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**ADULT EDUCATION.**—Among the innumerable topics that have been engaging the attention of the Education Board of the Economic Conference is what is called "adult education." The name is perhaps a little misleading, for after all those who most need consideration under any such scheme are the boys—the children—who are taken away from school to earn before they really have learnt anything. Towards them we have a special responsibility—the more insistent because of their remarkable willingness to learn, and their steady application when they are given the chance. In England, for a long time, attendance at school has been compulsory up to the age of fourteen, but the Government, realising that such attendance does not give children anything like

the equipment which is due to them from the State, has now introduced legislation making school-attendance compulsory up to the age of sixteen, and later the age will be eighteen. The scheme, which comes into operation at the beginning of next year, allows children of fourteen to enter employment, only their employers must permit them (both boys and girls) to attend school for three hundred and twenty hours in the year. Allowing for vacations, the school year will probably consist of about forty weeks, and thus attendance may be required for eight hours per week,—not much certainly, but quite enough to make a great difference both to the knowledge and to the prospects of the children. That either in Mysore or in British India anything like this should be done is probably quite out of the question for the present. Apart from the expense, and the organisation required, the principle of compulsion would be both unwise and unworkable. But there is a great deal that voluntary organisation can do, and Mr. T. E. Varadachari, the Honorary Secretary of the Poor Schools Society in Madras, has kindly promised us an article on the work of that society—the largest and most successful of its kind in the city of Madras. We have personal knowledge of the Poor Schools Society, having been associated with it at its beginning and for some years thereafter, and time and again have observed the classes at their work; and the response of these boys to their opportunity is simply astonishing. After a long and hard day's work they turn up at their night-school with unfailing regularity, and work with an eagerness most refreshing to see; for they like the work, and they realise also that it greatly improves their earning capacity. After a period of thorough testing the Government of Madras recognised these schools, which now receive a substantial grant. They thrrove without this, but of course it means a considerable expansion, and efficiency is guaranteed by government inspection. One rather melancholy feature of this work is the fact that voluntary teachers *cannot* be obtained in sufficient numbers. Many promise to give regular help in teaching, but it is almost invariably found that work, pleasure or weariness gradually leads to such irregularity as would paralyse the work, and thus the employment of paid teachers is always inevitable. They are usually men who teach in a day-school and are willing to give their services in the evening for a small additional salary. It would be a good sign of the times if volunteers could carry on this splendid work, which is one of the most immediately productive forms of social service, but we have seen the experiment fail again and again.—Such an organisation requires an absolutely devoted honorary secretary, like Mr. Varadachari himself. Its demands upon time and patience are limitless. There

is a great opportunity in Mysore and in Bangalore, if two such persons can be found and if Government finds it possible to give the necessary encouragement to the work.

**EXAMINATION RESULTS IN THE MADRAS UNIVERSITY.**—The annual outcry against the percentage of failures in university examinations is going on in Madras, and people seem to be more perplexed than ever as to "what is wrong." Admission, teaching, courses, standard, examining—each is pronounced by some critic the central sin of a generally malevolent university. One obviously sensible suggestion is made—that, as in home universities, examinations should be held twice a year; and this, we should imagine, the university is perfectly willing to arrange for, if anyone will show it how to pay for it. This innovation would of course provide a very welcome and reasonable relief for the student who has failed by a narrow margin; but it would not touch the main problem, which is this—a course having been arranged appropriate in scope and in nature to the conceived requirements of an Indian university, and students having been admitted after a test designed by the university, why is the percentage of failures infinitely greater, every year, than anywhere else in the world?

We believe the explanation to be simple. Neither course nor standard is essentially at fault. Critics constantly forget that the institution is a *university*, and that it gives *degrees* (the intermediate examination being the preliminary part of the degree examination). A university cannot, to please anyone, or to satisfy any sort of need, adopt courses or standards below the world-recognised university level. If it is to endow a man with its B.A. degree he must have had such a training and passed such tests as will secure his equality with graduates of universities in other parts of the world. Thus the very loudest opinion, which perpetually urges "the lightening of the course," simply strikes at the root of university education in India. Nor is there much wrong with the teaching. The most excellent staffing has not availed to set things right. As to the examining, it is scrupulously, accurately and generously done. Many a critic, arguing from his own preconceptions as to what the results ought to be, appears to conceive the Madras examiners as possessed by an intense zeal for failing people, and a delighted vigilance for slips and blunders. The fact is that the Madras examiners do not fail a man if they can possibly help it; and they will overlook many an ineptitude for the slightest glimmering of desert. It would be an interesting experiment to select a particularly savage

persecutor of examiners, place before him any given bundle of "failed papers," and ask him by what device whether of charity or of ingenuity he could assign to them a higher value. None but the examiners themselves are aware of the extraordinary poverty of these papers. We approach the heart of the matter when we remark that in any other university, in any country, a corresponding body of men, correspondingly chosen, would produce work just as poor, just as unworthy of a university, as that produced by the failed students of Madras. The point is that in other countries the *universities* do not contain a corresponding, similarly chosen, body of men.

Admission to the Madras University is made upon the results of the School Final Examination, together with the school records of the pupils. It is made with the assumption that a student who has done tolerably well at school, and in this examination, is *fit for a university career*. That is where the mistake, and the whole trouble, lies. The worlds of school work and of university work are so different that the student who is entirely at home in the one may be able to do nothing at all in the other. In western countries it is recognised that a university career is for the few—for those who are really competent intellectually to do it justice and to profit by it. And those who teach in western universities are able to assume this modicum of competence in their students, and their lectures are framed accordingly. They know that people whose particular gifts are not in the direction of higher study do not dream of entering the university, but seek, and are able to find, a line of development and activity suited to them, and, fortunately, leading to at least as remunerative employment. Such men may have done well enough at school, but in the university they would fail miserably,—and would be wasting their time. In India, however, every high school boy wants (most naturally, in the circumstances) to become a graduate, and the university must admit him if his school record is good enough. He enters college and, in most cases, is baffled from the beginning. A college class cannot be conducted in the way he is used to at school. He has no notion how to profit by college lecturing, and earnestly desires dictated notes which he may learn by heart. Accustomed to the schoolroom method of questioning and repetition and close supervision, he is lost in a large college class, and he has no idea how to "read" for himself. The lecturer's plight, like that of the average student, is an evil one : he knows that most of the members of his class are simply schoolboys, and yet he has his university duty to do. His compromise between school teaching and university lecturing is often most uncomfortable for himself.

The remedy lies in the suggestion of the Calcutta University Commission that the university course should begin two years later, two years after the School Final stage being spent in special intermediate institutions, where boys can gradually be introduced to university studies and methods. These two years would make it apparent which are really fit for further study. In Mysore one extra year is spent at school, and that makes a great deal of difference ; but the second year is most desirable.

This plan would secure the necessary sifting, but what of those that are sifted out ? This is the real problem, and it can be solved only by the provision of industrial opportunity, by convincing people that employment other than " professional " is equally worthy, and by so organising and prolonging *school* education as to make it an adequate preparation for such work as a clerk's. Meanwhile, it is quite unfair to blame the Madras University for trying to do its proper work. "The unfit should have been kept out," it may be answered. We have endeavoured to suggest the impossibility of discriminating them at the S. S. L. C. stage—and it may be added that had the Syndicate attempted a more rigorous exclusion their critics would have become more eloquent still.

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**MR. RADHAKRISHNAN'S NEW BOOK.**—The most recent volume in the series of "Mysore University Studies" is Professor S. Radhakrishnan's volume entitled *The Reign of Religion in Contemporary Philosophy*, published by Messrs. Macmillan and Co. Mr. Wadia is reviewing the work in detail for us, and his review-article will appear in the September issue. Meanwhile we would offer to Mr. Radhakrishnan the congratulations of his colleagues in the University upon a brilliant and exceedingly valuable piece of work—remarkable alike for the breadth and penetration of its thought and for the altogether delightful incisiveness, not unmixed with eloquence, of its style. The University has made a special point of encouraging work of a truly original kind, and denies no facilities to those who can produce it ; and this policy is already well rewarded.

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**THE BAILLIE DISASTER.**—We are exceedingly grateful to the Rev. E. Bull for the long article which appears in this and the September issue of the magazine. By patient examination of records and traditions and of the locality of the Baillie disaster, Mr. Bull has, we believe obtained a considerable amount of new information, and his account is probably the fullest and the most accurate yet produced.

### THE LATE MR. H. V. NANJUNDAYYA.

THE unexpected death of Mr. H. V. Nanjundayya in the early part of May last has removed from the field of public activities in Mysore a prominent person of high scholarship, mature experience and unqualified moral reputation. Mr. Nanjundayya at the time of his death required a few months to complete his sixtieth year, having been born in October 1860 and to all appearance, he was enjoying sound health, so that to many of those who heard of his death it came as a surprise and to his friends caused much anguish.

Mr. Nanjundayya from his school days gave signs of high mental abilities and there are still a few of his schoolmates left, who were with him in the Wesleyan Mission High School, Mysore, in the early seventies of the last century, and who can bear testimony to his great intellectual gifts which enabled him to secure brilliant successes at the various public examinations for which he appeared. Mr. Nanjundayya, after passing the Matriculation examination of the Madras University in 1875, from the Wesleyan Mission High School, Mysore, proceeded to Madras and joined what was then known as the Free Church of Scotland Mission Institution and now as the Christian College, of which the venerable Dr. Miller was the principal at the time. Students belonging to families of limited worldly means had a hard struggle in those days. The Government did not spend more than a couple of hundred rupees a month on scholarships and these were confined to the Government Colleges at Mysore and Bangalore. The desire for young men of high mental calibre as eligible bridegrooms for daughters belonging to wealthy families was not so insistent in those days as it has since become. Fortunately for Mr. Nanjundayya, he found a patron in Mr. C. Rangacharlu who was Controller of the Palace at the time and who gave him one of the scholarships which were being then disbursed from the Palace Treasury to students in needy circumstances. It was also a far cry in those days from Mysore to Madras, there being no Railway connection then between Mysore and Bangalore. Mr. Nanjundayya's father was a man of orthodox learning and mode of life and was naturally not keen to part with his son, but the boy had made up his mind and the father had sufficient perspicacity

also to perceive wisdom in the advice given by those who came to know of his young son's talents and who were sure of his capacity to make a mark in the world when the time came for his doing so.

Mr. Nanjundayya passed the B.A. degree examination in the year 1880 and in common with his compeers of those days had to trust himself to the uncertain official winds and waves for a living. At that period graduates were not in request to the same extent as they are now for official appointments and it even happened that they were looked upon as intruders in almost all departments of government, which more or less formed the preserve of non-graduates. There was one department however in the Madras Government—the Registration Department—which welcomed graduates for appointments, and Kollegal of the Coimbatore District, situated as it was on the tableland of Mysore and with Kannada as the language of its inhabitants, needed a sub-registrar and Mr. Nanjundayya was the first occupant of this coveted post for the graduates of those days.

The town of Kollegal, though situated almost on the frontier of Mysore at the distance of a few miles from the town of Tirumakoodalur-Narasipur, was a veritable sleepy hollow, and no young man with any pretence to even average abilities could bear to live in the place for long and lead a life of inanity. Mr. Nanjundayya accordingly left the place after serving there only for a few months and took up a ministerial place in the Madras Accountant-General's office, which was another haven for graduates. The work was exacting in this office and the emolument was no more than twenty-five rupees a month. Neither the work nor the emolument helped Mr. Nanjundayya to satisfy his ambition of attending the Law lectures and passing the B.L. examination. Luckily Dr. Miller came to his assistance at this time, and through his good offices the young aspirant secured enough means to complete the B.L. course and passed the examination in the year 1883.

His worldly career may be taken to have practically begun from this year, when he enrolled himself as an advocate of the Mysore Chief Court, and settled for practice at Mysore. His talents soon attracted notice and Sir Sheshadri Iyer, who was then Dewan of Mysore, having succeeded Mr. Rangacharlu, appointed him Munsiff of Nanjangud in the early part of 1885, by which time Mr. Nanjundayya had also passed the M.A. Examination. A few years after, he took the degree of M.L. also when he was sub-judge of Bangalore. From the days he began his official career as a munsiff to the days when he laid down his high office as a member of the State Council of His Highness the Maharaja

of Mysore in the year 1916, his career was one of smooth progress and high efficiency. He rapidly filled the offices of assistant commissioner, sub-judge, sub-division officer, deputy commissioner, secretary to Government, judge of the Chief Court and member of Council till under the rules of superannuation he had to retire from service after a long and honourable career. As a reward for his services His Highness the Maharaja conferred on him the title of Rajamantrapravina and the British Government made him a Companion of the Order of the Indian Empire. An autograph letter written by Lord Hardinge who was Viceroy when the latter title was bestowed bears high testimony to the estimation in which Mr. Nanjundayya's work and character were held.

With his retirement from the Public Service Mr. Nanjundayya's active career did not however end. He had acquired a reputation as a man of learning and was the author of a number of books. A novel in English written by him was highly commended by Sir William Lee-Warner, who read it in manuscript, though it could not be published in England on account of the unfamiliar Indian colouring it had to Englishmen. Mr. Nanjundayya also published a number of monographs on the various communities inhabiting Mysore, having been entrusted with the Ethnographical Survey of the State. He possessed a large degree of versatility of intellect and catholicity of taste, his authorship extending to books on law, books on political economy, novels and translations from the French. In connection with the reforms in British India he wrote a number of political pamphlets, and had an interview with Mr. Montagu and Lord Chelmsford at Madras when they visited the place some years ago. The University of Calcutta selected him as an examiner for the M.L. Degree examination.

When the University of Mysore was established in the year 1916, His Highness the Maharaja, as Chancellor, nominated Mr. Nanjundayya as the first Vice-Chancellor, and the public are aware what progress the University has made under his wise guidance during these four years. Suffice it to say that all those connected directly or indirectly with the University and all who have an interest in its development deplore his loss, and hope for an equally capable successor working with equally patriotic motives.

In society Mr. Nanjundayya was a man of simple life and of affable manners. Neither the sweets of office nor the great power which high official positions vested in him ever turned his head. Through all fortunes he possessed the same equable and philosophic frame of mind. He moved freely with all classes of people and was always known for doing a good turn whenever there was an opportunity for him to do so.

In religion he was a staunch Hindu, and though admiring the teachings of the Bible, under whose influence he came as a student, he was never known to speak in a light vein of the doctrines of the other sects of his own religion or for the matter of that of the doctrines of any other religion. His affectionate regard for Dr. Miller was repaid by the life-long friendship of the latter, and almost to the last there was interchange of letters between the venerable sage and his quondam pupil. While conveying to the large circle of the members of Mr. Nanjundayya's family and his relations our consolation at the great loss that they along with the people of Mysore have sustained on account of his death, we can only say that it will be but a duty discharged on the part of all who have watched his brilliant career and appreciated his good work and high moral character, if a suitable memorial can be organised to perpetuate his name as the first Vice-Chancellor of the Mysore University.

M. SHAMA RAO.

## THE LATE MR. H. V. NANJUNDAYYA.

RAJAMANTRAPAVINA Mr. H. V. Nanjundayya, M.A., M.L., C.I.E., the retired Councillor and the Vice-Chancellor of the Mysore University died on the 7th May 1920. He was nearly 60 years of age.

It was on the 13th of October 1860 that he was born. His parents were highly orthodox people. His father was well-versed in the literature and philosophy of the east. His mother was a lady of remarkable intelligence. She was a regular storehouse of the Hindu Puranas. Mr. Nanjundayya owed a great deal of his many-sided knowledge to the lessons he imbibed from his extraordinary parents in his early days. Mr. Nanjundayya's mother was a great fatalist. She had great faith in the Philosophy of Karma. She used to say "we reap as we sow." She used to illustrate this statement by numberless stories legendary as well as practical. It was from his mother that the boy learnt that both heaven and hell were on earth and that emancipation and bondage were in the hands of the people themselves. Mr. Galton has brought out in his book on heredity how children partake of the nature of their parents. Mr. Nanjundayya inherited from his parents what is more than a good physique—a brilliant intellect and a large heart. The first lessons that he received from his mother showed how men and women fall by their helpless surrender to their lower passions. Many were the stories that the mother culled from the Puranas and practical life to set her son thinking about the matter. She dwelt with ecstasy upon the lives of men and women who, by trampling under foot the dictates of their passions, lifted themselves up to the pinnacle not merely of material but of moral glory, and earned for themselves a sanctified position second only to that of God. She had great faith in the Advaita philosophy. Her Advaita consisted in working for the welfare of all, and she trusted that enthusiastic and devoted work for mankind would infallibly lead to moral salvation. She impressed upon her son the great value of looking upon the pain of every one as his own pain and the happiness of every one as his own happiness. This Advaita philosophy inherited from his mother and developed by his own studies became a predominant element of his life, and if Mr. Nanjundayya was noted for anything it was for the greatness of his heart, which beat in sympathy with

every one of his fellow-creatures. Mr. Nanjundayya was a great man. His gifts of the head were great. His gifts of the heart were greater, and the reduction of both these gifts into practice made him one of the greatest sons of Mysore. It was Sir William Hunter who characterised the late Sir Sheshadri Iyer as a gentleman who devoted his head to Herbert Spencer and his heart to Parabrahma. I do not say much about the head of Mr. Nanjundayya, for his intellectual gifts are well known to all. But I can say without fear of contradiction that Mr. Nanjundayya possessed the largest heart and it beat in sincere sympathy with the aspirations of all without the least regard to country, caste, colour or creed.

Though born in a middle class family he rose to the highest position. When he was a student in the Wesleyan High School, Mysore, he was a favourite with both teachers and classmates. On a certain morning when he was going to school Colonel Ranton, the City Magistrate, Mysore, saw him going to school and reading on the way. The Colonel, struck by the look of him, stopped him and put several questions to him as to his parentage, study, future ambition, etc. The ready and unsophisticated replies that the boy gave interested the Colonel in his welfare. He put a rupee into his hand and asked him how he would use it. He replied that he would use it in buying class books. The Colonel encouraged him and asked him to see him now and then and make a report about his progress. The boy did not know how to thank the Colonel, but his eyes disclosed the depth of his gratitude and pleasure, and for a long time the Colonel took an interest in his welfare.

While at school Mr. Nanjundayya contracted many friendships. The most important of these was that with Sowcar Chikkapapanna. Mr. Papanna's mind, even in his boyhood, was a storehouse of Tamil literature. He used to keep a large number of his classmates spellbound by describing in vivid language the stirring events in the lives of the great Shaiva saints of Southern India. Young Nanjundayya beat him hollow in describing the great deeds of the heroes of Ramayana, Mahabharata, Bhagavata and other Puranas. These two young men were the centre of attraction among the students of the seventies in Mysore. The friendship between them developed day by day so that by the time Nanjundayya passed his Matriculation Examination, it had become a devoted attachment. The purse of the Sowcar was placed at the disposal of his friend. He went to Madras. He joined the Christian College. He became a favourite student of Dr. Miller and other professors. He took his B.A. and B.L. degrees.

He entered British service, but after some time resigned and became an advocate of the Chief Court of Mysore. He practised in Mysore for about a year. He then joined the Public Service of Mysore. He served the State in the Judicial Department and worked as a munsiff, a sub-judge, a district judge, and a judge of the Chief Court and then became Chief Judge. He worked also in the Revenue Department. He was an assistant commissioner, a deputy commissioner, a councillor and officiated even as Dewan of Mysore. He worked in the Secretariat as an under-secretary and as Chief Secretary. Thus he acquired an administrative experience which was unparalleled. He was for some years in charge of the Education Department both as the executive head of the department and as councillor in charge of the Education portfolio. In all these departments he stood by his own views. He never did anything without considering the pros and cons of it and when he did it he stood to his guns. At the time when he was retired, it so happened that the University of Mysore was being established. A Vice-Chancellor with recognised scholarship and educational and administrative experience was wanted. His Highness the Maharaja saw that neither in nor out of the Province could anyone better qualified be found. Mr. Nanjundayya was appointed as the first Vice-Chancellor. The destinies of the Mysore University were safe in his hands, and he spared no effort to work out its salvation during the most difficult part of its life, namely its infancy. There is one remarkable sentiment expressed by Mr. Nanjundayya in his address at the opening of the University. It shows the constitution of his mind. He observed that in securing the best talent for the University no Swadeshi spirit would be shown. This laid down a healthy policy in administering the affairs of the University. The best talent in or out of the Province should in his estimation be utilised for the progress of the University in all directions. He carried out this policy most religiously. The constitution of the University and the men on the staff of the constituent colleges bear ample testimony to the fulfilment of the policy chalked out by him. The University had a monopoly of his solicitude, and the closing days of his life were full of happy dreams about the future usefulness of the University both to Mysore and to India.

Mr. Nanjundayya's life was well-lived. He was a good son, a good brother, a good husband, a good father, a good and loyal servant of the State, a good citizen, and a good and unostentatious patriot. Mysore can be proud of him. India can also be proud of him. Good men are the conscience of society. I place Mr. Nanjundayya in the category

of good men. He died and yet he lives. May he live long and may his thoughts, words and deeds stimulate the younger generation and enable them to follow his example in their struggle through their life! Mr. Nanjundayya's life was an encyclopaedic one. For one who has moved with him it looms very large. Numberless achievements in which he took a prominent part so crowd together that unless one undertakes to write a biography extending to several volumes it is impossible to do justice to the life and lifework of a man who worked day and night for the good of his country and who was a source of delight to all who came into intimate contact with him. I shall content myself with saying that he was one of the most precious assets of the State and that his removal from the arena of the social, moral, educational and political activities of Mysore and India is an event which cannot but draw tears from the eyes of those who knew him well.

M. VENKATKRISHNAYYA.

## FROM HUME TO GREEN.

It is a fascinating task, and one full of instruction, to watch the movement of theories, how they originate and how they are further shaped and modified by successive thinkers in response to new social needs. Utilitarianism, the moral theory which judges human conduct and institutions by the amount of happiness they confer on the community, has had a singular history in England. It is generally associated with the great names of Bentham and Mill, since it was in their hands that it became a potent practical force in politics. But it was Hume who first gave a classical exposition of the theory in his *Treatise on Human Nature*. It is no wonder that on reading the third book of this treatise Bentham felt as if scales fell from his eyes. John Stuart Mill proclaimed his adhesion to the theory though in his treatment of it he raised more questions than he answered. Perhaps the greatest critic of Utilitarianism is T. H. Green, who yet is forced to acknowledge that, with all its defects, no other theory has been available for the social and political reformer, combining so much truth with such ready applicability. And Green himself is justly claimed as the true successor of Mill in the line of political thinkers. In view of this continuity of idea it may not be unprofitable to trace briefly the course of political thought from Hume to Green. Further it will not be a bad thing to learn political science at the feet of such masters of close and precise reasoning as Hume and Mill, and no one can be brought into contact with Green's mind without feeling all the better for it.

In one of his earliest essays, Hume points out the fundamental importance to a nation of possessing a properly constituted government and a wise system of laws. As he advanced in life, Hume became more and more conservative, and showed decided leanings towards absolute monarchy. In his earlier years he had more faith in free government, by which he means government by hereditary rulers tempered by a nobility and an elected popular chamber. The principal evils of all absolute governments, in his view, are two in number:—(1) the administration of the state in such governments depends on the casual humours and tempers of particular men; (2) they tend to depress the

political energy of the governed. In free governments, on the other hand, the controls and checks provided by the constitution make it the interest even of bad men to act for the public good. Good laws engender habits of order and moderation in those who are subject to them. A system of wise regulations is perhaps the most valuable legacy that can be left to future ages. It should be the aim, therefore, of legislators to introduce those forms and institutions which secure liberty, promote the public good, and restrain the ambition or avarice of particular people.

All this is profoundly true, but it is equally true that "the laws reach but a little way, constitute government how you please. Infinitely the greater part of it must depend upon the exercise of powers which are left at large to the prudence and uprightness of ministers of state. Even all the use and potency of the laws depends upon them. Without them your commonwealth is no better than a scheme of paper; and not a living, active, effective constitution" (See Morley's *Burke*). As has been acutely pointed out there are scarcely any maxims (at any rate in politics) which are true in all respects: we must take them in pairs to find out the mean truth.

Hume anticipates the conclusions of recent sociological theory in tracing the origin of government to force and conquest. He dismisses the social contract theory as historically baseless and philosophically untenable. Perhaps the most important and instructive criticism passed on the social contract theory is that of Hume in his essay on the Original Contract. And yet the vitality of the theory continues unimpaired to the present day. Hume's essay was published in 1752. Exactly ten years later appeared Rousseau's epoch-making book. It prepared the way for the French Revolution, exercised the deepest influence on both thought and action, and is even now continuing to attract the attention of the ablest thinkers.

It will be remembered that in his little treatise on the Idea of a Universal History in a cosmopolitan point of view, Kant works out, with a force and impressiveness all his own, the conception that history is the progress of the development of the capacities given to man by Nature. The means which she uses to bring about this development is the *unsocial sociability* of men, i.e. their inclination to enter into society combined with a perpetual resistance to this tendency. It is however just this resistance which awakens the higher powers of man which in course of time transform his *pathological* necessities into *moral* impulses and it is only "in a society in which there is the greatest freedom, and therefore a thorough antagonism of all

the members, and at the same time the most exact determination and secure maintenance of the limit of this freedom in each so that it may consist with equal freedom in all the rest, that the highest end of nature in man, *i.e.* the full development of all his natural capacities, can be attained." And the same necessity which makes individuals submit to the rules of law in one society makes individual states submit to a common system of laws to regulate their relations with one another. (Caird on Kant, Vol. II., pp. 508-512).

If we leave out the reference to "final purpose" this is also in essence the teaching of Hume. The principal difference between the two great writers consists in the fact that whereas Kant is convinced that the end of man is perfection, at any rate on earth, Hume believes that it is happiness.

It is a commonplace that at every step man is dependent on the help and co-operation of others, and that without such co-operation he is unable to meet even his barest physical necessities. But it is not physical need alone that brings men together. In a fine passage Hume points out how man craves for fellowship:—

"In all creatures that prey not upon others and are not agitated with violent passions, there appears a remarkable desire of company, which associates them together, without any advantages they can ever propose to reap from their union. This is still more conspicuous in man as being the creature of the universe who has the most ardent desire of society and is fitted for it by the most advantages. We can form no wish which has not a reference to society. A perfect solitude is, perhaps, the greatest punishment we can suffer. Every pleasure languishes when enjoyed apart from company and every pain becomes more cruel and intolerable. Whatever other passions we may be actuated by, pride, ambition, avarice, curiosity, revenge or lust, the soul or animating principle of them all is sympathy; nor would they have any force were we to abstract entirely from the thoughts and sentiments of others. Let all the powers and elements of nature conspire to serve and obey one man, let the sun rise and set at his command, the sea and rivers roll as he pleases and the earth furnish spontaneously whatever may be useful or agreeable to him, he will still be miserable, till you give some one person at least with whom he may share his happiness and whose esteem and friendship he may enjoy."

This sociability is, however, restricted in its range, and till it is educated by reason it unfits men for larger societies. It is "confined generosity," as Hume calls it, and is one drawback to the maintenance of an effective social union. There is yet another and more serious

drawback, and that is the niggardliness of nature in providing for the wants of men, which leads frequently to collision between the claims of individuals and the claims of their fellows. Hence the need for certain rules of mutual restraint and the coercive power of the state to enforce them. It follows that the first and principal function of government is the administration of justice, and in Hume's opinion this is the only function of government. His own words are explicit on this point "Man, born in a family," he says, "is compelled to maintain society from necessity, from mutual inclination, and from habit. The same creature, in his farther progress, is engaged to establish political society in order to administer justice, without which there can be no peace among them, nor safety, nor mutual intercourse. We are, therefore, to look upon all the vast apparatus of our government as having ultimately no other object or purpose but the distribution of justice, or, in other words, the support of the twelve judges. Kings and Parliaments, fleets and armies, officers of the Court and Revenue, Ambassadors, Ministers, and Privy Councillors, are all subordinate in the end to this part of administration."

Among those rules of justice which the state should enforce in the interests of society, there are three of fundamental importance :—

- (1) Men should be assured in the possession of their property.
- (2) They should be free to transfer such property to others by consent.
- (3) Contracts should be enforced.

It is an accepted modern principle of legislation that laws are made for the benefit of the community at large and not for the benefit of individuals or classes of individuals. If any law has the aspect of conferring benefits on any individual or class of individuals it must be because it indirectly works out for the good of the community. This peculiarity of law is very well brought out by Hume. All civil laws are general in their operation and do not take into consideration the characters and circumstances of particular individuals. Public utility requires such a procedure, though it may bring about hardship in individual cases. The laws will deprive without scruples a beneficent person of all his possessions, if acquired by mistake without title, and bestow them on a selfish miser who may have already heaped up an enormous amount of superfluous wealth. "Even the general laws of the universe, though planned by infinite wisdom, cannot exclude all evil inconvenience in every particular operation."

Again, public utility requires that, in framing particular regulations to give effect to the general laws of property, the legislator should

take into consideration the actual constitution of human nature. This principle excludes the application of the rule of assigning property according to merit, or benevolent impulses. "So great is the uncertainty of merit, both from its natural obscurity, and from the self-conceit of each individual, that no determinate rule of conduct would ever result from it, and the total dissolution of society must be the immediate consequence. Fanatics may suppose that dominion is founded on grace and that saints alone inherit the earth, but the civil magistrate very justly puts these sublime theorists on the same footing with common robbers, and teaches them the severest discipline that a rule which, in speculation, may seem the most advantageous to society may yet be found, in practice, totally pernicious and destructive." The same principle excludes the application of the rule of absolute equality of possessions which finds favour with an extreme school of socialism. "Render possessions ever so equal, men's different degrees of art, care and industry will immediately break that equality. Or if you check these virtues, you reduce society to the most extreme indigence, and instead of preventing want and beggary in a few, render it unavoidable to the whole community."

From the consideration of the laws of a state Hume passes on to the consideration of international law. The ultimate justification for international law rests on the same principle of social utility which, as we have seen, is the foundation of municipal law. The three fundamental rules of justice, security of possession, transfer by consent, and the performance of promises, are as much binding on states as on subjects. Where possession is not secure, there will be perpetual war. Where property cannot be transferred by consent there will be no reciprocal exchange of goods and services, *i.e.* commerce. Where promises are not observed, there will be no leagues or alliances. The benefits of peace, commerce, and mutual help prompt men to extend to different kingdoms the principles of justice which prevail among individuals.

To sum up, society is essential for the happiness of men. The maintenance of society will not be possible while men give free course to their impulses. Hence the obligation to observe certain rules restraining action, that is, the laws of justice. Reflection and sentiment transform in course of time what is primarily an interest into a *moral* obligation. The same obligation is extended to the intercourse between states "so that no one of ever so corrupt morals will approve of a prince who voluntarily and on his own accord breaks his word or violates any treaty."

The moral and political theory of Hume is open to several objections. It will be sufficient, for our purpose, to note two of them:—

(1) It is a serious defect in Hume that his contempt for “monkish virtues” makes him blind to a whole group of admirable virtues, the basis of which is the capacity for self-sacrifice. The following passage speaks for itself:—

“And as every quality which is useful or agreeable to ourselves or others is in common life allowed to be a part of personal merit; so no other will ever be received, where men judge of things by their natural, unprejudiced reason, without the delusive glosses of superstition and false religion. Celibacy, fasting, penance, mortification, self-denial, humility, silence, solitude, and the whole train of monkish virtues; for what reason are they everywhere rejected by men of sense, but because they serve to no manner of purpose; neither advance a man’s fortune in the world, nor render him a more valuable member of society; neither qualify him for the entertainment of company nor increase his power of self-enjoyment? We observe, on the contrary, that they cross all these desirable ends; stupefy the understanding and harden the heart, obscure the fancy and sour the temper. We justly, therefore, transfer them to the opposite column and place them in the catalogue of vices; nor has any superstition force sufficient among men of the world to prevent entirely these natural sentiments. A gloomy, hair-brained enthusiast, after his death, may have a place in the calendar; but will scarcely ever be admitted, when alive, into intimacy and society, except by those who are as delirious and dismal as himself.”

(2) The conception of society as an organism is wanting in Hume. He regards society as a mere collection of separate individuals, or, as Leslie Stephen puts it, as a mass of atoms. It is a characteristic postulate of modern thought that man is organically related to society, and that apart from his social relations he would cease to be a person. He inherits his physical existence and disposition from his parents and as he advances in life he is continually moulded by the social and political institutions by which he is surrounded. “Strive as we will,” says a great modern teacher, “we cannot in thought, any more than in reality, isolate the individual from society, without at the same time taking from him all that characterizes him as an individual” (Caird). It will be seen, as we proceed, that this conception of the organic relation between the individual and society colours Mill’s later political thought and forms the starting-point of T. H. Green’s philosophy alike in ethics and in politics.

## THE BAILLIE DISASTER

SEPTEMBER 10TH, 1780.

### I

#### *History and Tradition.*

THIS incident of the military operations of the English in India claims, or should claim, the notice of historians. Its military character, alone, is full of interest and importance; while its political significance at the time of its occurrence was of such a character as seriously to lessen the prestige of the English cause. Beyond this, it is associated with a romantic tragedy which should have been immortalised by painters as well as by writers of poetry or prose. Even at the present day when the subject comes to the front, as it does in the fields of research and tradition, it never fails to claim tributes of oratory and eloquence. A scholarly writer on the history of the early English occupation of South India, speaks thus of the last scene of the tragedy:—"In the history of the British people, there is nothing finer or more terrible than Baillie's resistance to the overwhelming army which surrounded him. Cannonaded on his left, his front and his right, scorched with the fire of musketry and rockets, and harassed by incessant charges of horsemen, he struggled on, leaving the ground behind him strewn with his dead and wounded. With 500 survivors he reached a piece of ground a little higher than the rest of the plain and there they made their last stand. Five hundred against 100,000!! Exhausted! wounded! and without ammunition this remnant remained undaunted. Desperately lacerated men, with scarce a spark of life left in them, raised themselves somehow and received the enemy on their bayonets. Thirteen separate attacks were thus repulsed and then seeing no hope of succour Baillie held up a flag of truce."\*

Nor was it only the English soldiery who won renown on that occasion. The sepoy too, claimed, by their deeds of valour, a recognition eloquent beyond mere wordy eulogy. Some artist in eloquence has left an undying phrase to mark the admiration of their English comrades. "It is said," says a writer, "that here, perhaps, on the first occasion the sepoy were known only by their colour!" The incident however takes on another colouring than that of the "Homeric."

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\* *Vicissitudes of Fort St. George*, by David Leighton. A. J. Combridge & Co.

Politically its importance influenced the policy and tactics of England's adversaries both inside and outside India itself. In contemporary journals and reports are to be found "party opinion" on the disastrous nature of this defeat; which considering the comparative insignificance of the actual force concerned, shows that the episode had about it a significance in the eyes of the public as grave as it was notorious. Beyond this, we may enlarge the consideration of the affair to the sphere of military science and tactics. Here Baillie's "Disaster" from a military point of view has become, like Monmouth's unhappy debacle at Sedgemoor, almost classic. In passing it might be remarked that, considering all that was written about Perambaukam at the time of the mishap and for some years afterwards, little use appears to be made at the present time of either the site or the subject of the defeat. The battle-fields of India appear to be seldom visited by soldiers "on profession bent," though officers are supposed to know of them in their historical studies. Such places as Pillalore, Wandiwash, Sholingur, Arcot and Plassey would surely afford if not object lessons for the study of modern warfare, at least landmarks of military history to interest and instruct the young soldier's mind. As a subject of research and investigation the "Baillie Disaster" from these three standpoints should appeal to many. In India this interest should deepen, especially in those parts and localities which were immediately concerned. These spots, at the present day, include towns and communities of educated people amongst whom doubtless are many who would welcome reliable information on one of the most prominent and far-reaching incidents of Indian History of the 18th century. It is for this reason that this article is written and offered to the University of Mysore—a city connected closely with the tragedies and triumphs of the British arms in South India, and close to the tombs of Hyder Ali and Tippu Sultan, and the fortress of Seringapatam—the scene of the unhappy Baillie's tragic death and Baird's romantic captivity. I propose for the purpose of investigation and research to divide the article up into two parts, I. The Baillie Disaster in history and tradition, II. The Baillie Disaster in Research.

Many accounts have been written of the incident which bears the above emphatic title, but there appears scope left still to the historian for giving a clear, full and connected account of this almost unique military operation. Some accounts lack life and those graphic touches which help to inscribe facts on the memory. Others are either inaccurate or incomplete, and leave the readers wishing they knew more than what they gather from the text itself. When one considers that this careless and somewhat perfunctory treatment of history does not result

from the unimportance or obscurity of the subject, but from an inadequate method, it invites fresh attempts on the part of other writers. Even 'Wilk's History,' so well-known to most students of this period, full as it is of detail, does not "round off" the subject for ready reference or afford clear and connected information. What the student and the reader wish to know is not only the actual facts of the disaster itself, but something of those facts of history which lead up to it: so few are really aware of the motives and causes of the several transactions which colour the episode with additional tragedy! The principle of production according to type is at work in the actions and doings of men as much as it is in nature around us. To "gather grapes of thorns and figs of thistles" is impossible in the world of politics as in the vegetable kingdom. Ultimately the product is true to its source and type. Nowhere in history has this been revealed more than in the "decadence" of France and in the rise of the British Empire in India.

The military and political debacles of the French in India are so obviously the fruits of national vices that one does not attempt to detail the instances themselves in support of the assertion. Dupleix, Lally, and other great names and personalities fell martyrs to patriotism solely because the nation had become saturated with tyranny, licentiousness and irreligion. No one would seriously contest the point—the reigns of the XIVth and XVth Louis are sufficient proof of it. With the English fortune in India it was somewhat different. No absolute failure rewarded the greed, indolence, bad faith and general unprincipledness which at times characterised the history of the early days of British enterprise and rule in India. That was impossible on the same principle as is quoted above. The basic character of the British nation was not vicious and depraved. Irreligion might have been an individual failing amongst the rich and educated but it had not become, as in France, *a public boast!* However untrue the *Memoirs* of the famous Abbé Dubois may be, the production of even such fictitious history was made possible only by the fact of a general moral and religious decadence. English satire or cynicism has perhaps never descended to such depths. The moral disease from which the British nation was at this time suffering, was *endemic and partial* rather than *universal and prevailing*. The individuality of British character made this possible and likely, and so we find that the *main* policy of the Nation succeeded where that of France failed; while, here and there, failure and tragedy and a certain moral perniciousness draws itself like a slimy stain across pages of our history. One cannot in these days either attempt or desire to attempt a "brief" for

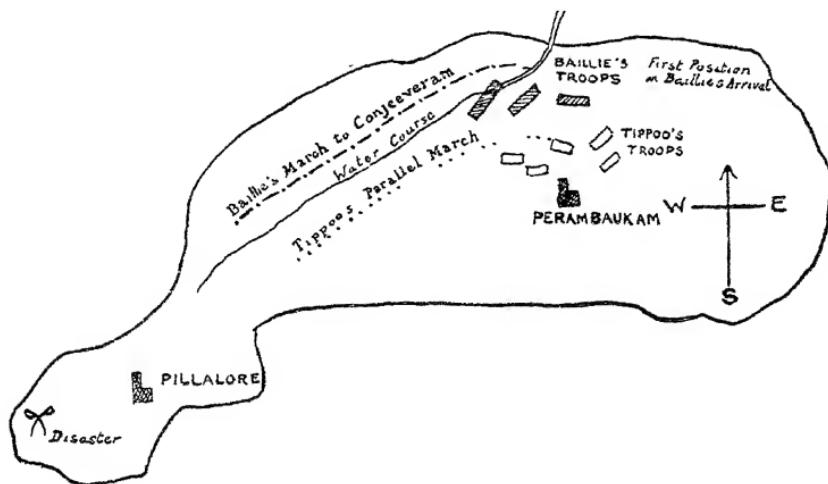
Warren Hastings' actions in the matters of the "Settlement of the Tanjore Raj" and Nuncomar's conviction and sentence. Nor again are we edified by the bickerings and quarrellings and the rivalries and malice which existed and were displayed in the councils of Fort St. George or of Fort William. One has to discard worn-out prejudices in this twentieth century to read history with a view to using it as a panacea for racial differences. The antecedents of the "Baillie Disaster" were a "sowing to the wind" which "reaped the whirlwind," and though in parts it is repeating old history, we shall give a review of the events which led up to this military debacle. In 1769 Hyder Ali pushed British prestige to the very edge of disaster and forced from the Government of Fort St. George acquiescence in the famous treaty of offence and defence between the English and himself. Very shortly after the actual signing of this treaty, in fact in the year following it, with an idea both of proving the English good faith and of impressing the Mahratta host with his preparedness, Hyder asked the Council of Fort St. George to send a regiment of the Company's sepoy's under the charge of a European Officer to him to serve with his forces against the Mahrattas, whenever they should take the field. The Council tried to evade fulfilling their engagement on the rather weak excuse that the Councils at Calcutta and Bombay had first to be consulted. It is certain that their real object was to embarrass Hyder and weaken his growing power and so it turned out. The Mahrattas, having invaded Hyder's territory, succeeded in taking many of his forts. Hyder wrote again urgently to the Council of Fort St. George showing the necessity of their assistance. His appeal was supported by the private despatches of several English officers, acting as agents for the Company, in Hyder's Camp. These officers in their despatches pointed out that a refusal of Hyder's just request would result in making him an inveterate enemy. The appeals produced no effect, and Hyder was left to his own resources and suffered almost complete defeat. Such an act of treachery and bad faith on the part of the English was unworthy of their good name and has been condemned by every writer of history. Hyder never forgave it, and the weary and cruel wars which followed and the slaughters, imprisonments and misery of the next thirty years can all be traced to this act of bad faith. And, as if this were a true pattern of English dealing, shortly afterwards we find that the Council at Madras were trying to break another treaty made with their other ally the Nizam of the Deccan. This treaty concerned the renting and occupation of that large tract of land lying to the North of Madras and known as the Circars. Four

provinces of this territory had already been occupied and farmed by the English at a yearly rental of about £50,000. The revenue of the fifth province, that of Guntur, had been assigned to Bazalet Jung, the Nizam's brother, on the conditions that he was to let it to no one and that should he, Bazalet, die it lapsed to the Nizams again. The English Company at Madras had failed, for some time, to pay the rent of the four provinces leased to them. They now designed to effect the remission of this rent altogether and also to obtain possession of the fifth province of Guntur. They were met in the purpose half way by Bazalet Jung himself, for he appears to have been a man both unprincipled and weak. Finding the administration of his territory irksome and the undisciplined state of his troops a danger to himself—through pretending they were so only in the presence of Hyder Ali's designs—he sought an alliance with the English for himself, and in return agreed to lease to them Guntur. Having made this invalid treaty with Bazalet Jung, the English proceeded to occupy Guntur with troops and rented the province to their ally the Nawab of Arcot. Such a treasonable evasion of their original agreement resulted in a strong protest from the Soubadar, to which they answered with deceit and excuses which instead of allaying his anger rather increased it. Firstly they advanced the plea that the Nizam's brother had leased it to them, as already occupiers of the other four provinces, and that the urgency of the matter had prevented them up till then from referring the arrangement to the Nizam's Court. They next commenced to quibble over the matter of the Nizam's authority to lease the provinces at all. They produced as a last resource their claim to the whole five provinces under a former grant of them made to the Company in 1765 by Shah Alum, the Mogul, offering, however, to recognize the Nizam's authority provided that he agreed to let matters stand as they were. Needless to say the Nizam was both surprised and enraged. Warning Mr. Holland, the British agent at his Court, of the consequences, he demanded the rent in arrears, the withdrawal of English troops already in Guntur, and the restoration of the province itself to the former lessee Bazalet Jung. The English still further temporizing, he joined forces with Hyder Ali and declared war. This brings us up to the time of Hyder Ali's sudden invasion of the Carnatic, and the plan of campaign which ended in "The Baillie Disaster".

It is not necessary here to go further into the state of politics existing at the time of this campaign. Every one at all interested in the history of those times knows something of the state of affairs then in Madras and of the unpreparedness, divisions, bickerings,

rivalries, which existed in all departments of the Fort St. George Government. We would advise any one seeking for such information to read that almost incomparable book of David Leighton, "The Vicissitudes of Fort St. George" published by A. J. Combridge. The consultations, controversies and councils held when the threatened danger of Hyder's invasion broke like a thunderstorm over the Carnatic are all given there. Against the overwhelming force which invaded the Company's territory, ravaging, pillaging, burning and slaughtering, a few scattered forces of the Company were hastily got together and a desultory plan of campaign improvised to meet the emergency. This article is concerned more with the happenings of the actual campaign, and so we shall merely state that it was finally decided by the Council to mobilize the troops to hand in Madras itself and march them thence to Conjeeveram to await there the junction of the Guntur Army which was to march in as direct a line as possible to this appointed rendezvous at Conjeeveram. Colonel Baillie, it appears, had lately succeeded to the command of the Guntur Force, and had with him his own regiment (raised mainly by his own exertions) which took the title of "Baillie-ke Pultan," that is Baillie's regiment—a title which, as the 64th Pioneers, it bears to-day. Baillie was an old officer of the Company's service, and one can trace his name and exploits through the pages of the history of his time. In stature short and well-knit, he possessed a soldierly appearance and was considered a brave, capable soldier. His faults, though, were not unknown, and were those of indecision and over-cautiousness, which, in the position in which he was to find himself, led finally to his undoing. Guntur being roughly speaking some 250 miles from the objective of his march, he might well ponder with a certain misgiving over the details of his orders. They were to march direct to Conjeeveram and not first to Madras to join Munro, who remained still at the "Mount" there until August 25th, the very day Baillie reached Vangal. Baillie left Guntur on August 2nd with roughly speaking some 2,700 troops and 10 guns—mostly six-pounders. Nothing of any importance happened to his force until within 40 miles of Conjeeveram. Then he sent a despatch to Madras advising and asking to be permitted to march via Ennore to Madras. He received from Madras in reply somewhat preemphatic orders to march direct to Conjeeveram. Was Baillie already beginning to lose his nerve? Certain it is that from this time until the Disaster he acted "strangely" whenever a decision had to be made or a sudden emergency to be met. There is little doubt that his indecision and timidity over crossing the Cortalier River was the result of his utter lack of confidence in the plan of campaign to be

pursued. Was his delay caused by *timidity* or a ruse to gain time? Officers who were present and who survived the disaster stated afterwards that the river was fordable when Baillie reached it, but was impassable a few hours later owing to a heavy fall of rain. He eventually crossed the river on September 5th, allowing the enemy by the delay to march detachments from Musarawaukam, Hyder's concentration camp some 5 miles west of Conjeeveram, to Perambaukam and there await his arrival. The river was fordable on 3rd September, but the same blamable dilatoriness marked the conduct of affairs on that date. The actual crossing took place on the 5th, and on the 6th Baillie reached the village of Perambaukam, which has since lent its name to the misfortune of the 10th. On arrival at Perambaukam Baillie appears to have been given little time for rest or for forming his army to receive Hyder's first attack which lasted, we are told in Baillie's despatches, from 11 a.m. till 2 p.m., and resulted in a victory for the English.



The above plan roughly describes the position of Tipu's force sent by Hyder to intercept Baillie. The distance from Perambaukam to Pillalore where the final disaster happened is about 6 miles, from the place of the disaster to Conjeeveram about 8 miles. With regard to the action at Perambaukam the accounts which have come down to us are not very clear. Baillie's message—rather than despatch—sent to Munro at Conjeeveram on the 6th after the action, tells us very little. It appears from other sources that Hyder's force under the command of his son Tipu included a detachment of 6,000 cavalry under Meer Sahib, sent to harass Baillie at his crossing of the river on

September 5th. Tippu with a force of 8,000 infantry and 18,000 cavalry, with guns, occupied Perambaukam to await Baillie's arrival. It was then the engagement was fought, which resulted in Tippu's temporary repulse and the loss to Baillie of about 300 or 400 men with the expenditure of much valuable ammunition. One thing appears certain, that in Baillie's message *no suggestion of half measures on Munro's part was advocated.* Baillie asked Munro to reinforce him and march to meet him and Munro should have seen at once the futility of any half measures. Baillie's report made a point of his need of ammunition, and this must not be lost sight of in what follows. The map of Baillie's "Disaster" which is offered here will now carry forward the story of this tragedy. Munro was at Conjeeeveram with his stores and artillery which were parked in and round the Great Pagoda there. To the west of his position and on the banks of the Palar river was Hyder's huge concentration camp of Musarawaukam—about 5 miles distant, and containing, up to the time that Tippu's force was detached, some 90,000 troops. On receipt of intelligence from his spies "who were everywhere," of Baillie's arrival at Perambaukam, Hyder moved his army to the north and east of Conjeeeveram thereby masking Munro's force and threatening Baillie's approach. At the same time he busied himself watching Munro who he expected would march to meet Baillie. By such vigilance he also became aware of Baillie's appeal to Munro and the despatch of Munro's reinforcements to Baillie. For on Baillie's message reaching Munro's camp there arose at once a discussion of the possibility of giving the assistance he asked for. The general opinion now is that Munro at first felt disposed to march with his whole army to his assistance *but it is said he was overpersuaded by a Colonel who feared if this were done he would lose a command which, if a detachment were sent, he might obtain,* together with all hopes if the expedition were successful of being rewarded with promotion! Who this Colonel was has never been recorded in writing; but there could be only one such person and that was Fletcher himself who paid dearly for his selfish ambition. The discussion referred to above, in which Lord Macleod commanding the 73rd Highlanders took a prominent part and an adverse opinion to Munro's, reached a final decision. It was decided to make up a strong detachment of the following reinforcements:—Two hundred of the 73rd Highlanders under the command of Captain (afterwards Sir David) Baird and Captain Lindsay, 200 European troops of the Company's Service and 1,000 sepoyes officered by Captains Rumley and Gowdie and Lieutenants Ferrier and Phillips. The force was commanded as we have stated by Colonel Fletcher of 73rd Regiment. At first it was thought

best that the force should be accompanied by six guns but Fletcher who appears, whatever his demerits, to have been a capable officer and sagacious soldier, dispensed with them; the troops, however, took with them *loose powder in bags* to replenish Baillie's depleted wagons. This powder was mainly the undoing of Baillie's army. Hyder being perfectly cognizant of this plan of relief saw to it that the guides of the relieving force were in his own pay. But he had not counted on Fletcher's sagacity. Following his guides when the force set out, Fletcher allowed himself to be led by the direct route to Perambaukam which was traversed by a cart track and passed to the east of Pillalore. This route Hyder had carefully ambushed at different points and was confident thereby of destroying the whole of Fletcher's force. The arrangements of this ambush were entrusted by Hyder to one of his most trusted officers. Fletcher's march has never been accurately estimated, but it was a feat which must have tested the endurance of his troops to the utmost. Some say he started as early as 4 p.m. on the evening of the 8th of September and though it was light then it was part of Hyder's policy to appear ignorant of Fletcher's design. It is certain, though, that Fletcher's march must have been almost a record one being conducted through wet paddy fields and extended over 18 or 20 miles. The line of the march is approximately given in the map and the red spot marks the point at which under pain of death he compelled his treacherous guides to hoist Hyder with his own petard and guide him by a safe, circuitous route to Baillie. Fletcher's ruse completely succeeded, to the joy and surprise of Baillie's force, to the consternation of the French Officers in Hyder's service and to the rage of Hyder himself, who so bitterly reproached his trusted officer, referred to above, as to drive him eventually to his death. On the junction of Fletcher's forces with Baillie's army great joy and confidence were expressed on all sides in the British force; and thought the relieving force had marched throughout the previous night it was determined to resume the march to Conjeeveram that night. The march commenced at 8 p.m. on the night of the 9th September and was continued, along the track given in the map, until midnight. During this time Tippu's undefeated force marched parallel with Baillie's army at a distance of about  $\frac{3}{4}$  mile apart, and for part of the way were separated from their enemy by a watercourse, the banks of which served as a barricade for them. Tippu's incessant attacks hindered the progress of Baillie's force and added to the labours of the march in many ways. A little after midnight, when Baillie had proceeded only about  $4\frac{1}{2}$  miles, a halt was called at the spot marked in the map. This fatal halt has been the subject of much

discussion, some saying that Baillie acted here from overconfidence and from a desire to make his successful junction of the forces in daylight, in the sight of the troops; others, that being overfatigued and dreading the arrival of more of Hyder's detachments he halted in sheer perplexity, in order, as he said to Baird, that he might continue the march when he could "see about him." It is useless to go over well-known history and there is nothing further to record than that during this halt Tippu had leisure to dispose his troops ahead of Baillie on the right and left and to obtain from Hyder the assistance of the main army to ambush and obstruct Baillie's advance. The point to be made clear is where the actual disaster took place!! There is no doubt that much of the 'debacle' took place to the north of the village of Pillalore and about  $1\frac{1}{2}$  miles from it, but Baillie's force was then still moving ahead and being outflanked by Tippu's troops while threatened with the approach from in front of Hyder's main army. Baillie's force regained for a time the Coverapank road until on a level with and distant from Pillalore (to the west)  $\frac{1}{4}$  mile. They then marched towards the village toll, on its outskirts; being completely demoralized, they turned to the right and straggled a hundred yards or so on to the rising ground to the south west of the village and there took up their first stand. It is necessary here to be clear as to the incidents of the final surrender. There were collected on this rising ground about 500 men formed into a square. Thirteen attacks of Hyder's army—numbering about 70,000 or 80,000 troops—were repulsed and Baillie was about to order an advance on Hyder's wavering ranks. It is certain, from several accounts, that a panic was setting in in Hyder's army who were apprehensive of Munro's approach. Hyder reported afterwards having actually seen some of Munro's advanced guard, when the fatal mishap so well known to all happened,—*Baillie's powder wagons blew up.*

Fletcher's fatal 'powder bags' carried by his troops, were piled against the tumbrels and are supposed to have been ignited by some of Hyder's fiery rockets. In a moment the square was shattered and broken, and Tippu, seizing the opportunity, threw in his forces and by his sheer weight of numbers, crushed the last efforts of resistance. At this stage the demoralization was so general that a number of sepoyes and Europeans fled to a pagoda near by up which they climbed and kept up, with the little ammunition they retained on them, a desultory fire on Hyder's men. Previous to this Baillie had hoisted the white flag and it was this continuance of the British fire which was taken by Hyder to be a breach of the surrender and an excuse for the cruel and dastardly massacre

that followed. When all was done, and at the intercession and protest of the French Officers the survivors were collected, only 16 remained unwounded and only 200 to 300 prisoners survived,—the army of Baillie numbering on its last march 3,500 men was practically annihilated. Never before had such a disaster befallen the British arms in India. Baillie himself survived. Fletcher was dead together with some 29 officers and 150 of his regiment; nearly all the sepoys were killed or dispersed. Hyder marched, later in the day, to Damal some 6 to 8 miles from the scene of the disaster, being still apprehensive of Munro's troops. Munro had indeed at last advanced on seeing that Hyder's forces had marched to join Tippu. He appears to have had no definite plan and after being almost an eye witness of the disaster returned to Conjeeveram, destroyed his stores, sank his heavy guns in the tank and retreated as fast as he could to Chingleput and finally to Madras. Opinions differ as to the soundness of his actions. Some say he did the only wise thing he could do when convinced Baillie was destroyed; others, amongst whom was Lord Macleod, bitterly upbraided him for not making an attempt to save even the remnant of Baillie's devoted host. It must be remembered in defence of Munro, that his army was the only available force the Company had and that Madras was threatened. To have risked that army was to risk all. It is hard to judge and the chief blunders must lie to the charge of the council of Fort St. George and to the unhappy Baillie. This appears, from information gathered from all available sources of written history and from reliable tradition, to be the true account of the facts which led up to and culminated in the military debacle known to posterity up to the present day as the Baillie Disaster. I shall now proceed to illustrate and supplement this account with local traditions and evidence from research which I have personally collected and made.

(*To be continued.*)

EDWARD BULL.

## THE FUTURE OF RELIGION.\*

DURING the middle of the nineteenth century under the influence of scientific metaphysicians such as Spencer, Huxley, Romanes, Tyndall Lewes, Clifford, etc., the authority of religion was undermined by the criticism of science. Science solved the problems of life in a way which made religion impossible. The whole course of development was put to the credit of matter and motion, and mind, as ultimate, was turned out of the universe. The creeds of religion, Pagan and Christian were dismissed as mystic nonsense, mass of superstition or survivals of barbarism. In a patronising manner it used to be said that though the elect might give a hearty send-off to God, the myths of religion were useful for the edification of the unlearned. It was an age of the glorification of science and the breakdown of religion. But weak human nature requires some support to lean on. Man cannot live without the faith which science denies. He cannot do without religion while science cannot do with it. When the two run counter to each other, they cannot help quarrelling. The spirit of science cannot be suppressed any more than the need for religion. It has been the persistent attempt of philosophy to harmonise the soul of man with the world around him. It steps into the breach between science and religion to effect a reconciliation between them. It supports science in the view that it is a difficult thing to prove that God is. It puts religion on the back urging that it is equally difficult to prove that God is not. Umpiring between the two, it asks them to give God the benefit of the doubt. What kind of God is it that we can believe in? It cannot be a God who can be easily swept away by science. A refinement of religious belief into agreement with reason is the need of the hour. Such a philosophical reconstruction of religious belief is attempted in Mr. Webb's Gifford Lectures and Mr. Carpenter's interpretation of religions. Both these writers are endowed with broad culture and historical learning, deep feeling and transparent sincerity and their views deserve careful consideration.

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\* *Divine Personality and Human Life.* By C. C. J. Webb. George Allen and Unwin. 10-6 net.

*Pagan and Christian Creeds.* Edward Carpenter. George Allen and Unwin. 10-7 net.

In their ultimate world-views we find that Mr. Webb represents the mind of yesterday and Mr. Carpenter the mind of to-morrow. To the former, historical Christianity is the highest form of religion ; it is not so to the latter. To Mr. Webb, a religion which emphasises the personality of God is the highest religion and "it is in historical Christianity that a stress has been laid on personality in God which is absent from the other great religions of mankind" (II. 102). To Mr. Carpenter, on the other hand, a personal God is not the highest reality. The ultimate principle is a universal life which enfolds us all. Such an all-inclusive, infinite, impersonal ground cannot be the object of religion, according to Mr. Webb. Who can love a triangle or worship the whole or pray to the Absolute ? We want a God made in our own image, who can be looked upon as a friend and companion, our protector and Father in Heaven. None else can inspire popular enthusiasm. Mr. Carpenter is conscious of the paradox of religious experience. In it, the subject self is set over against the independent reality of God. The object worshipped cannot be the Absolute for worship implies mutual distinction. If God is not the all-embracing reality, then religion has no meaning. The vacillation between God as supreme and God as Absolute is due to the paradoxical nature of religious experience. Mr. Carpenter believes that in the highest mystic condition, there will be an overthrow of the values of the popular religious consciousness. Such a subordination of ordinary religious experience to something higher is impossible for Mr. Webb. It follows that the personal life of the finite individual has only a subordinate value to Mr. Carpenter while Mr. Webb looks upon it as an ultimate factor of the universe. Mr. Webb is pre-eminently a Christian thinker trying to defend at any cost the Christian conceptions of God and man. He is the College lecturer bound by a tradition, oppressed by the weight of his learning, and of a restful temperament who is anxious to pay his homage to the old, the venerable tradition. The thing that hath been, it is that which shall be, and there is no new thing under the sun. Mr. Carpenter is not of the tribe of professors by nature or by training, has no academical airs but is a cultured gentleman of the best type, with interests all round and a romantic temperament. He feels with all the force of his heart where the truth lies and longs to lead the world thither. When we say that Mr. Carpenter is not a specialist we do not mean to suggest that he has not the requisite learning for the work he has undertaken. It is true that he knows less than Mr. Webb about metaphysics and philosophy of religion but he knows a good deal about the history of religions, mythology, psychology and psychical research. His book

sparkles with light from the literature of all ages and countries. Now that we happen to be talking about the externals of these books, we may say that Mr. Webb writes a simple clear style though he seems to be fond of long sentences. It is unnecessary for us to say much about the stylistic charm of the work of Mr. Carpenter. He is a literary artist who knows what he wants to say and enjoys saying it.

In the first course of Gifford Lectures on God and Personality (reviewed in this Magazine, August 1919) Mr. Webb developed his views about the Personality of God and in the present course he discusses the bearings of his views on the economic, scientific, aesthetic, political, moral and religious activities of human life. In Lecture II he argues that the man in whose life the economic interest predominates, if he has any religion at all, favours an anthropomorphic cult, which is only a vague anticipation of Mr. Webb's conception of Divine Personality. It is purely a matter of opinion. In Lecture III which is about scientific life, Mr. Webb, after referring to the feelings of awe and reverence which the vast universe creates in the mind of the scientist, asks, "shall we be going far astray if we suggest that nothing but a manifestation of Personal Spirit could thus inspire the sentiment of reverential awe in the mind?" Here Mr. Webb brings his conclusion with him to the argument and imagines that it is derived from it. Since nature responds to the demands of intelligence, it follows that it is an expression of intelligence. But whether it is personal or not is just the question at issue and nothing is gained by assuming it. In Lecture IV, on the aesthetic life, Mr. Webb admits that the austere God of Monotheism, the Maker of all things and the judge of all men is not congenial to the artist soul. The artist's view of the world emphasises the immanence of God and not his transcendence. And if Mr. Webb urges with Chesterton that Blake's attitude is theistic, we may appeal to Swinburne who held that Blake believed in pantheism however much the imaginative language he employed may sound theistic. In Lecture V, about moral life, Mr. Webb argues that "in our consciousness of obligation we are aware of an imponent of the obligation whom we must reverence as other than ourselves." It is also Martineau's opinion. "The person that bears the obligation cannot also be the person whose presence imposes it." (Types of Ethical Theory II. p. 96). Such a view takes us to deism with all its theological machinery of the dogma of creation, a monarchical God 'a sort of Louis XIV of the heavens' and juridical morality and eschatology. A transcendent God of this type is irreconcilable with the results of science and evolution. Apart from this, it is a little old-fashioned to say that

we cannot describe satisfactorily our attitude to the moral law "except as one towards a personal law-giver." The idea of corporate personality suggests to Mr. Webb (Lecture VI) that God may be a person embodying the spiritual life of the universe even as a king symbolises the unity and tradition of a society. The king is not the society, nor is God the whole. Mr. Webb is conscious that these arguments are not quite so coercive as that based on the religious experience of man to which he turns in Lecture VII. It is there that we get the assurance of a transcendent personal God. An impersonal Absolute has no scope for personal relations with finite individuals. Reciprocal intercourse between God and Man is possible only with a personal God. Such a God set over against man and worthy of worship, can only be finite. We have the authority of Mill that the evidence of this world leads us to a finite God, "of great but limited power how or by what limited we cannot even conjecture, of great and perhaps unlimited intelligence, but perhaps also more limited than his power." If God be the whole, he must be the author of evil also and then we cannot worship him. We are reminded of the famous remark of Darwin, "What a book a devil's chaplain might write on the clumsy wasteful, blundering, low and horribly cruel works of nature." (More Letters I. 94). It is the reality of evil that makes Bergson regard the cosmic principle as a wayward, elusive, captious *élan vital*. It is a serious problem with which many contemporary thinkers such as Dean Rashdall, Dr. Schiller and Mr. H. G. Wells wrestle, when they vote for a finite God. Mr. Webb does not agree with this view. But is he willing to concede that his mild beneficent God worthy of worship by man is responsible for the atrocities of the Punjab and the anarchy of Ireland? If he is, can such a God who is obviously not good, be an object of worship? We are not here supporting the conception of a finite God. With Mr. Webb, we are also impressed with the imposing incoherence of this idea. To us, this conception of a finite God anticipates, if it does not announce the subordinate value of the ordinary religious consciousness which is riddled with contradictions. Mr. Webb is of a different opinion and so should relieve God of his responsibility for evil or admit that he is not a fit object of worship.

Another argument which tends to support the conception of a finite God is that based on the social implication of personality. Whosoever is called a person must be confronted by a thing not itself. The Absolute, according to Mr. Webb, can be a person and yet have nothing set against it. This is cutting the knot and not untying it. In Lecture VI, Mr. Webb, recognising that personality has a social reference, urges that

the social relations need not be external. The Christian conception of trinity helps him to ride two horses together. By the "theory of the mutual relations of the persons included within the Divine Essence," Mr. Webb is able to grant personality as well as social relations to the highest (II. 166). This is only to multiply difficulties. To reconcile the unity of godhead with the diversity of the world gives enough trouble. Why add to it other problems?

What is the testimony of the ordinary religious consciousness? It reveals the existence of some higher reality outside the self of the individual. The worshipper and the object worshipped are viewed as separate from each other. God is so great, so steady, so wise, and so beneficent and man is so small, so weak, so selfish and so ignorant that he cannot do anything but fall on his knees with his forehead in the dust, with his heart shivering with awe and trembling with hope. An infinite distance separates the two. When God is regarded as a person, he is given a separate, exclusive personality. Only towards such a God is the note of humility which is the characteristic feature of Christian religion possible (103). As Edward Caird urges, for pure monotheism, "God was merely one subject among other subjects, and though lifted high above them, the source of all their life, was yet related to them as an external and independent will" (*Evolution of Religion* II. 72). Mr. Webb knows that such a transcendent deity is irreconcilable with modern science and evolution hypotheses. He is willing to refine the religious experience to some extent so as to make God the indwelling spirit. The external God of the deists of the 18th century is replaced by the inherent principle of the evolutionists of the 19th century. When once we are on this track, why should we not go the whole length and say that the unrest of the soul cannot be stilled until it is absorbed in the adoration of the Absolute? Mr. Webb is unwilling, for the last word in metaphysics is our Father in heaven of Christianity.

Mr. Webb is clearly conscious of the inadequacy of a personal God, if it means anything less than the whole. "I feel convinced that when once a stage of intellectual development has been reached at which the question of the relation of God to the Absolute would arise, no conception of God which takes him for less than the ultimate reality will satisfy the demands of the religious consciousness" (I. 137-138). The God of religion must also be the Absolute of metaphysics. In that case, we feel, it cannot be the object of religious worship, though it may be involved in it. It is a futile attempt to force into the ordinary religious consciousness the conclusions of highest philosophy. What is revealed in it, may be the expression of the Absolute or the way in

which the finite self conceives it. It is the inveterate tendency of the human soul to envisage its relation to the highest in terms of personality but we need not transfer the language of religion without modification to metaphysics. We are willing to admit that the Absolute which is the object of strenuous thought becomes a personal God when viewed through the fervour of devotion. The white radiance of eternity is too much for the weak sight of man and so is broken up into the many-hued rainbow for man to handle it in life. It is one thing to say that the God as revealed in religious consciousness is the appearance of the highest reality and another that he is the highest reality. Mr. Webb believes in the latter. We despair. God we know or at least think we know: the Absolute we know, but what is this God-Absolute of Mr. Webb? How can the immediate object of religious consciousness be the highest reality of philosophy as well? Of course, the highest reality of metaphysics is the logical implication of the religious consciousness but is not what is given in it. True; "no God that is explicitly distinguished from the Absolute can prove a satisfying object to the religious consciousness in any one who has attained to the level of intellectual development at which he can ask himself the question what is behind and beyond the God whom he worships" (I.219). None denies that the Absolute is 'behind and beyond the God whom he worships.' It comes to this that the God of religion is the appearance of the Absolute. If so, it is not the highest reality. But the Christian prejudice has Mr. Webb by the throat and he cannot agree to the logic of the situation. He persists that the God of religion is just the Absolute of metaphysics, (I. 154), unmindful of the obvious truth that "a God that can say to himself 'I' over against you and we is not defensible as the last and complete 'truth for metaphysics'" (Bradley: Truth and Reality. Chapter XV). The philosophical impulse makes him feel that the Absolute alone is the highest reality; the religious impulse leads him to ascribe personality to it, for, otherwise, the Christian conceptions of sin and forgiveness, justice and mercy become unintelligible.

Mr. Webb does not wish to "remain content with the reduction of an experience so manifestly substantial, rational and harmonious, as a genuine religious experience can be to the rank of mere mirage or sheer illusion" (I. 264). No one will be insane enough to reduce religious experience to a 'mere mirage' or 'sheer illusion.' Even according to Mr. Webb, only 'a genuine' religious experience has ontological value.' Only through philosophy can we discriminate the genuine from the spurious religious experience. Mr. Webb admits that the knowledge of God derived from religious experience is not intuitive

but intellectually mediated (II. 181). It is the function of philosophy to draw out the implications of the religious consciousness. Philosophy has to decide which form of religious belief is the final one. We have religions of all grades and forms from the crudest animism to the loftiest mysticism. If we are not prepared to admit as final the low thought of the savage believing in powers distinct from him, controlling his fate, protecting his land, determining his customs, why should we think the religion of a man who believes in a hypothetical relation to a personal power to be fixed and final, if it has not philosophical justification? Why should we think that there cannot be a higher than this religion of personal intercourse? Can we not have a religion which idealises the intellectual love of God, where there is lacking "the reciprocation by God of the worshipper's knowledge and love of him" (II. 195). Is it not at least a possibility? In a great sentence of one of the greatest books of the world, Spinoza writes, "He who loves God must not expect that God shall love him in return." The highest religion must assert the conclusions of the highest philosophy. The religious sense requires to be trained before it can take delight in the truth. Man cannot jump to that level of elevation all at once. He is therefore in need of sign and image, symbol and dogma, as the scaffolding necessary for the building up in him of the temple of spirit. When the building is complete, the scaffolding is unnecessary. Mr. Webb seems to assert the finality of the scaffolding. To put too much stress on the external support is a common failing and is the source of narrowness and obscurantism, intolerance and pretensions of superiority in religious matters.

A catholic outlook born of true philosophic insight characterises the work of Mr. Edward Carpenter. He does not believe in the popular prejudice of the ignorant that there is only one set of dogmas, one form of worship, one system of ceremonial, one code of commandments and one list of prohibitions which all men must accept or be damned for ever. In the book under review, he investigates the origin and growth of religions and holds that the particular religions are all stages of the one world-religion—the *Sanatana Dharma*—the eternal spiritual endeavour of man. "Religious evolution through the ages has been practically one thing—that there has been in fact a world-religion, though with various phases and branches," (16). The phenomena of religion, with its orderly phases of evolution and its spontaneous growth, proceeds from and is a necessary accompaniment of the growth of human consciousness, through its three stages of simple consciousness, self-consciousness and universal consciousness. These three

stages answer roughly to Bergson's instinct, intellect and intuition. Paganism represents the religion of the first stage, Christianity the second and a mystic religion of the type suggested by the ancient Indian scriptures, the Upanishads and the Bhagavadgita the third. "The doctrines of the Upanishads may serve to give an idea, intimate even though inadequate, of the third stage—that which follows on the stage of self-consciousness; and to portray the mental attitudes which are characteristic of that stage" (18). In the first stage, man feels himself a part of nature, perfectly well adapted to his surroundings. "The tribes felt their relationship to their winged and four-footed mates (including also other objects of nature) so deeply and intensely that they adopted the latter as their emblems" (224). It was an age of simple, unconscious solidarity with man and nature. Soon this simple instinctive consciousness is disturbed by the intrusion of self-consciousness. The self becomes absorbed in its own interests and cuts itself off from the larger life of nature and society. "Ambition, vanity, greed, the love of domination, the desire for property and possession set in" (226). When the unity and continuity of man with his surroundings break up, a sense of loneliness comes upon him. "The realisation of himself as a separate conscious being necessarily led to his attributing a similar consciousness of some kind to the great life around him" (227). Belief in magic and demons and gods arise, with all the consequences of the sense of guilt and the need for expiatory rites. We are yet in the age of self-consciousness. The war has given a tremendous jolt to the self-satisfied man with his surface activities and self-regarding calculations. There is just a possibility of the soul's return to sanity. Mutual love and brotherliness may take the place of self-conceit and cruelty. Machines, money and materialism may yield to love, beauty and truth. The little self may be dethroned from its place at the centre of the universe. It is in the third stage that man will perceive his unity with nature. "Abandoning the quest and the glorification of the separate isolated self we have to return to the cosmic universal life" (235). It means the break up of old institutions and the death of materialism. It is a philosophy of *advaita* or non-differentiation that the age is in search of.

While, in answer to the challenge of science and criticism, Mr. Webb is willing to defend the Christian conception of God and the Trinity, Mr. Carpenter holds that the final point of conjunction between science and religion (p. 18) can be reached only in a religion of the type suggested by the Upanishads. The latter does not concede that Christianity reaches the high water-mark of religious evolution. To him, it is only one important branch of the great world-religion, emphasising

certain aspects and ignoring certain others. If Christianity is to live it has to correct its own deficiency in the light of the mystic religion to which the face of the future is set or else 'perish' (263, 264). That is the burden of Mr. Carpenter's chapter on "the Exodus of Christianity." Being a religion of the second self-conscious stage, it is not the final goal. To Mr. Webb, the self-conscious individual is of supreme value and so Christianity is the final form of religion. This takes us to the question of the value and destiny of the individual.

True to the tradition of European philosophy, where, from the time Anaxagoras put mind at the head of things and Socrates started his schools in the streets of Athens down to our own day, man has reigned supreme, Mr. Webb holds to the supremacy of the self. Our view of self has important bearings on the question of future life, whether the immortality vouchsafed to us is only a platonic survival of the best part of human nature, the reason capable of apprehending the eternal ideas, or is the survival of the complete individual as in the Jewish tradition. Here again, Mr. Webb falls back on the evidence of religious experience as he interprets it. If God reveals himself only to the intellectual part of man and there is no reciprocation by God of the love we show him, then the unique individuality distinguishing each of us from his fellows is indifferent and we reach the platonic immortality. But if we think that religious experience reveals to us a reciprocal personal intercourse, then our individuality has a unique value and is an essential factor which will survive as a whole. We need not say that Mr. Webb is inclined to favour the latter hypothesis which has centuries of Jewish and Christian tradition behind it. But his inclination is not supported by logic.

In Lectures VIII—X of his second course, Mr. Webb defends the personal life of the individual from the attacks of science and idealism. The vital point is about the elements of ultimate value in the life of the finite self. Is the *personal* factor peculiar to each individual ultimate or is it the *rational* element binding the experiences of self into a unity? In other words, does the value of personality belong to the formative principle of unity or the refractory material to be unified? The individuals are distinct from one another because of the matter of personality; the 'form' of reason makes all mankind one. Mr. Webb condemns the systems of pragmatism and personal idealism which deprecate the rational elements of self-hood and exaggerate the distinctness of individuals. If so, where is the objection to describing individuals as the variations of a common theme or differences within a whole. When Mr. Webb institutes an analysis into the nature of

self-hood and hits upon the principle of unity operative from the very beginning of personal life, he finds that the unity cannot be identified with the unity of the personal organism. Nor can it be identified with the chance series of experiences. It is the subject which can never become the object. It is the God in us. Mr. Webb knows that this is to eliminate the uniqueness of personality and so is at his wit's end to secure somehow the substantive existence of the self. Surely Mr. Webb cannot consent to any theory that grants the struggling finite individual with unrealised ideals substantive and self-complete existence. If the individual as he is, is looked upon as ultimate and substantive, then there is no need for science, art and morality. If each individual has his own unique essence, then he must have interests and possibilities of his own apart from those of the whole of which he forms a part. In other words, certain forms of conduct will be the necessary expression of personality and they may be independent of the interests of the whole, nay sometimes contrary to them. Unselfish conduct is not necessarily the right course. Mr. Webb has the sense to see that only conduct where the peculiarities of the individual are suppressed and the unity with the whole emphasised, *i.e.*, conduct which unselfs the self is good. So personality is not a fact but an achievement. We have yet to realise it. We reach it when we shed off our human limitations, when the sting of self and the curse of separateness are given up. The finite self of man has to outgrow itself and surrender the false claim to absolute independence and self-existence. The self of man is never content with its finitude which makes it distinct from others but stretches itself out towards the infinite and tries to lose itself in the whole and be clothed with the heavens and crowned with the stars. Then shall we realise that there is no uniqueness about the self of man, that self and not self are slowly won distinctions of advancing life, which will ultimately be taken up into the whole. We have to return to the discarded paganism though in an enlightened form. The principle of our life should be the mystic teaching of the Upanishads, "the identity of the self of each individual with the self of every other individual throughout mankind, and even with the selves of the animals and other creatures" (Carpenter: p. 299).

S RADHAKRISHNAN.

## PSALMS OF MARATHA SAINTS.\*

### A QUEST FOR THE 'TRUE' GOD.

AMONG the legacies that old India has bequeathed to her sons there is certainly none of which they are prouder than the wealth of her spiritual experiences and knowledge. And as a specimen of what has been thus transmitted through centuries the chaplet of psalms, that has been just given to the world, is a most welcome addition to the already well-known and popular series of books published under the very suggestive title of "The Heritage of India."

The appearance particularly of this, the sixth, number of the series immediately after the Great War is of special interest. The value, however, of this publication seems to lie not so much in the translated texts as in the critical introduction of the learned author, Dr. Nicol Macnicol. In producing this work, his main object appears to be to bring home to the reader the force of his conclusion that "Indian Saints have no vision of a world judged or a world redeemed." Their horizon is very narrow and their God is their own "personal" God—not the "nation's" or the "world's," and "the Hebrew saints and prophets realised earlier and with a profounder grasp than any other people that it is only the pure in heart that can truly see God, that it is in the 'mortal, moral strife' that He is alone aright revealed." In other words, this is an attempt at viewing the comparative merits of Hinduism and Judaism from the special stand-point of saints and seers. And it must be acknowledged without any qualification, that this book fulfils in a pre-eminent degree one of the main objects of the series—that of approaching Indian religious thought with a broader sympathy than is ordinarily found in criticisms of alien faiths. Nevertheless, whatever impression the contents may produce upon the followers of other creeds, they strike a new key in the heart of such modern Hindus as try to keep their eyes open.

If after the Great War the necessity has been most keenly felt for recasting into new moulds our old ideas of politics, industry, education and whatever else vitally affects society, the call appears not less imperative for a reconstruction of our religious notions also. The vicissitudes through which the history of some of the leading nations of the

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\*"Psalms of Maratha Saints." By Nicol Macnicol, M.A., D.Litt. The Heritage of India Series: Association Press, Calcutta.

earth has passed during the last four years have stirred to the very depths some of the theological convictions of the modern Hindu. His ideas of the efficiency of religious faiths have undergone no little change: and his eagerness to purge the old faiths of the effete dogmas of the past has been quickened.

If we ignore, for a moment the more common, but the less logical, "personal" measure of the worth of religious beliefs, the most important of the remaining tests is undoubtedly the "national" or the "world" standard, as Dr. Macnicol points out in adjudging the superiority of the Hebrew conception of divinity. It is also the most practical and the most convincing in that it gauges the extent to which the general well-being of a community or of humanity as a whole is promoted by the faith in a 'National' or a 'World' God.

As enlightenment advances, the prospects of a *post mortem* admission to the audience of the Almighty or of a *post mortem* immunity from the infection of sorrow and suffering, lose their charms. Such assurances, howsoever emphatic and howsoever tempting, are being, in so far as they shun the light of rational proof, more and more relegated to the regions over which myth, fable, delusion and others of that ilk exercise their dogmatic sway. And should a Hindu or a Mahomedan venture to declare that the Christian or the Jew is doomed to perdition, *after death*, it is equally open to the latter to predict, with no less force of logic, that a similar future awaits the former. Or, if it should be urged that God has put his favourites of a particular persuasion in sole possession of the keys of His heaven, that they may enter it directly after they shuffle off their mortal coil, the same divine partiality can without the least fear of any sane contradiction be claimed to have been vouchsafed to every other creed on earth. Leaving, therefore, such ultra-mundane matters to those who are said to have colonized the immeasurable and dark continent from whose bourne no travellers have yet truly returned to tell us of the wonders there, if we should confine our attention to this our prosaic side of the stage of life we should be led to think that the value of a 'National' God creed lies in what He does to promote the general prosperity and the general moral well-being of His adherents as a body, the 'Personal' or 'Individual' satisfaction arising from communion with Him being left out of account as being of lesser importance, as indicated by Dr. Macnicol.

What, then, are the contributions of the God of Hinduism, of Mahomedanism, of Judaism, or for that matter, of the God of any other religion, to the general or 'national' well-being of the communities devoted to Him ?

Have the *prayers* of the Hindus and the Mussulmans to their respective Gods saved them from the jaws of the plagues, pestilences, famines and other dire calamities that have visited their lands in such endless number and succession ? Or, has their God helped them to thrive and multiply, as their brethren of other creeds ? On the other hand, in spite of their most pitiable cries, these adherents have been allowed by their God to remain steeped in greater ignorance of that knowledge that helps men to combat poverty, disease and death than the followers of the God of other faiths have been. Turning to the Hebrews, we know that no religious community on earth has probably suffered greater persecution. The children of Israel are being slowly wiped out of existence, at any rate independent existence. They have not even a home of their own to flee to in times of distress. No doubt it is argued that the fulfilment of the promises of their Jehova is in Christianity. But that is what the Christians, not what the Jews themselves, think. Nor have the results of the labours of the Lord of the Christians been less depressing or disconcerting. The history of mankind can show few parallels to the utter disregard of morality, humanity, culture and whatever is held sacred by the human heart, which the Great War of the Christian nations revealed. In this hour of the *greatest* trial, what became of "Morality," the keystone of the arch of the Hebrew Religion, the one feature in which Dr. Macnicol thinks the faith of the Hebrews or the Christians, excels the faith of "any other people" ? Which of them—was there even one?—when smitten on the one cheek readily showed the other ? An eye for an eye, a tooth for a tooth was still the supreme law. And how shall we ignore the most glaring fact that the *greatest* war known to History was that fought under the auspices, not of the god of 'morality-lacking' Hindus but of the God of 'morality-loving' Hebrews or Christians ?

How shall we explain the occurrence, among the followers of that God, of the terrible accidents that carried away so large a number of His most promising children during the war ? How shall we justify, above all, the ways of that 'National' God who permitted thousands of the *pure* and innocent babies and helpless women of Christian Armenia, Russia and Belgium to suffer and die. Where then is the guarantee that by following Him we shall not be similarly deserted when we need His help most ? Retribution may come later. But of what avail is it to the innocent that have been butchered already and have been made victims ?

The 'National' God either knew of what was going to happen or knew it not. If He knew and yet did not save the children, He must

be impotent, not having been able to avert the danger, and what is worse He must have dissembled, in that He kept them in ignorance of the most serious dangers ahead, an attitude which not even the sinful *mortal* parent could coolly contemplate with complacency. If He did not know the future and if He could not save, He was no better than our puny selves. And if He was, as Dr. Macnicol, would make Him, a ‘World’ God, was He ‘*moral*’ in egging on His own *faithful* followers to destroy each other and particularly in teaching them, every day, new secrets of the vile art of destroying life and property, and ultimately involving even that part of the world that was no party to the war, in an indescribable economic ruin ?

It may be argued that like unto a loving father, He only chastises His beloved children that He may shape them into righteous beings. But what is the ethical or spiritual training that He hopes to give to the infants after their heads are chopped off, or to the youths after they are buried in the grave ? If this be the kind of love that the Hebrew Father bears to His children, how is He superior to the Hindu, Mahomedan, or other God who has likewise allowed His followers to become a prey to the other ills of life ? All that the ‘National’ God of these communities appears to have done from His ethereal throne on High is to teach His crawling, cringing creatures of this earth, who on their bended knees beg of Him for help in times of sore distress, to keep crying ‘*peccavi*’ and ‘*Thy will be done*’ when the ravenous wolves of poverty, disease and war are gnawing away the vitals of the worshippers ! What are the sins that suckling babes on the mothers’ breasts have committed that they should also suffer ? And how far is this God, this “King, ruling a people in righteousness” more ‘*moral*’ than the Hindu’s Brahman “Whose rule,” as Dr. Macnicol has it, “if it can be called rule, may extend more widely, but extends over an empty and silent land, a wide, grey, lampless, deep unpeopled world ?” Yes, if this is King Log, that is King Stork. Which is the better ?

Of God, as ‘personally’ realised by individuals, we have nothing to say here. And we cannot dispute the inherent and inalienable right of every human being to fashion his personal God according to his own lights and tastes. But as regards the notion of a ‘World’ God, a God common to all mankind, who, the learned doctor suggests, is superior to a ‘Personal’ God, we cannot help asking, as we have a right to do, whether a ‘World’ God *truly* exists, whether he is a *reality*. If ‘true,’ in Him must be found all the characteristics of truth.

Now, the existence of the wall before me is *true*, not merely

because I ‘personally’ have a knowledge of its existence but because the “world” also outside me recognises it as such and deals with it as such. Should any one differ and think it a big loaf of bread and set to munching bits of it, we should not hesitate to account him mad, though he may ‘personally’ believe himself to be perfectly sane. Again the truth of my knowledge of the existence of the wall does not depend upon my moods or attitudes. There is in it a something which *constrains* me, as well as every one else, to take it as it reveals itself : i.e., I cannot change it even though I may *imagine* it to be a loaf of bread or a something else. Thirdly, my knowledge of it must show *no* signs of change ; for, if it changed with time, if what I see is a wall at one time, a loaf of bread at another, a dragon at some other time and so forth, my knowledge would be inconsistent, and such knowledge, false knowledge. If then, a ‘World’ God exists *in truth*, He must be known to be *such* to the whole ‘World,’ and that especially because He is said to be omnipresent. Next, our knowledge of Him must be the outcome not of our imagination but of something that compels all men to take the knowledge of Him as it is given to us. And if He is truly known, time cannot change our knowledge of Him. For, if it did, we should have no means of knowing Him as He is. A ‘World’ God, therefore, who is known only to particular sections of mankind, or who is known differently to different bodies of men, a ‘World’ God whom we could conceive as we please, but whose independent reality is unknown to us, or who is comprehended differently at different times, cannot be proved to be *true*. Even if Dr. Macnicol holds the other view, that God has ‘infinite’ aspects, and that He is ‘constantly changing’ like a chameleon, that He is ever ‘*Becoming*,’ no one knowing what He may turn out to be to-morrow—a Satan or a Belial,—and that men realise some one aspect or more of Him at different times, it has to be proved that it is *one and the same* Being that appears in manifold forms throughout the ‘world,’ and at all times. Till these indispensable proofs are found, the learned doctor’s ‘World’ God would be but a ‘phantom’ God. And the comparison instituted by him between the Hindu and the Hebrew ideas of divinity can have little value in the world of ‘Truth’ or ‘Reality.’

Therefore, asks the modern Hindu, is it not high time that the world revised its pre-war notions of a ‘National’ or a ‘World’ God and His ways ? Let not Dr. Macnicol think that the Indian prophets had no idea of a ‘World’ God. In the greatest of the Hindu Psalms, the Bhagavadgita, an entire section, the eleventh, is devoted to the Universal aspect of the Almighty Ruler. And it was at the time of the

Great War of the Mahabharata that the old religious notions were once before challenged, and recast, as in the Bhagavadgita. The more reason, therefore, for the Modern Hindu to ask once again—how long shall we be suckled by creeds so outworn?

After so effective a disillusionment by the Great War of our own times, shall we hesitate to throw into the melting pot of Reason all the old creeds and to pour the purified mass into better moulds?

If one could read aright the signs of the times, an encouraging answer appears to come from various sides. And one of the most re-assuring indications is that in the shape of the publication of the 'Heritage of India' series, whose volumes on religious subjects evidently proceed upon the principle that every religion, before it is consigned to the crucible, must be carefully weighed in the balance. And it is hoped that this process will ultimately lead to a juster appraisement of whatever is good in each.

So far as the attainment of this object goes, the labours bestowed on the production of this book of Psalms, do not appear to have been in vain. When it is said that the translation has passed through the hands of scholars like professors Patwardhan of Poona, and Dr. Sukhtankar of Indore it is a guarantee that the spirit of the Mahratti texts has not been sacrificed in the translation. And that there has been no unfairness to the saints of Pandharapur in the selection of their *Abhangs* is evident from the very fact that no less an authority than the esteemed Sir Ramakrishna Bhandarkar is responsible for the choice of nearly half. There are in all 108 of them, a number so auspicious to the Hindu. The most renowned of the saints, Jnaneswar, Muktabai, Janabai, Namdev, Ekanath and Tukaram are all represented. And the English metrical dress in which the learned Doctor has set them out is so dainty and charming that one is hardly tired of reading them over and over again. We have not seen many translations of Hindu religious poems so sympathetic, so felicitous, so effective.

The thoughts contained in the texts are not the exclusive property of Maharashtra. They form the staple of some of the best poetical compositions in Hindi, Bengali, Kannada, Telugu, Tamil and many other Indian languages. And Dr. Macnicol rightly prefers not to confine himself to *Maratha* saints but to speak of '*Indian*' saints in general, in his inferences. But we think he should not have ignored in his introduction the common source from which all these have drawn their inspiration, the Bhagavadgita. Without some idea of this fountain head, it is hardly possible to realise the full meaning of such poems. For, as has been pointed out, the Gita would have shown that the

notion of a ‘World God’ was not unknown to India. Neither the apparent inconsistency between the *Advaitic Jnan* of Jnaneswar, Namdev and Janabai, and the *Dvaitic Bhakti* so pronounced in Tukaram, nor the seeming incomparability of the ideals of the man of action, “urged and passionately moved to discharge his duties” and that of the man of thought, satisfied with a “passive” “placid mind” and a “life of tranquillity” would have been considered a flaw in the Indian religious system. The Hindu idea of Bhakti or love of God is supposed by Western critics, like Dr. Macnicol, to be inconsistent with ‘Advaita.’ But if they could see, like their own great poet, Tennyson, what the highest kind of love means they would realise that duality or ‘Dvaita’ cannot be opposed to it.

“Love took up the harp of life and smote on all the chords with might,

Smote the chord of *self*, that trembling passed in music out of sight.” (Locksley Hall).

But, above all, the learned author would have seen that the essential difference between the conception of the Hebrew or the Christian God and that of the Hindu God lies not in the features upon which he has dwelt at such great length but upon what the respective Gods have revealed about themselves:—

*The God of the Bible says:—*

“Thou shalt have no other Gods before me.

Thou shalt not bow down thyself to them, nor serve them, for I the Lord thy God am a jealous God, *visiting the iniquity of the fathers upon the children unto the third and fourth generation.*”

“Ye shall destroy their altars,

Break their images, and cut down their groves.”—(Exodus : XX and XXXIV.)

*And the God of the Gita says:—*

“Even those who, devoted to other Gods, worship them with faith, worship Myself.”

“The same am I to all beings.”

“He who hates no single being, who is friendly and compassionate to all, he is dear to Me.” (Chapters IX and XII.)

Such extremes, where else are they to meet, if not in the melting pot of Reason? For, who shall be the *post-war* God of the ‘world’ of *men with eyes open*, if not the “True”?

## HISTORY OF THE THEORY OF ELECTROLYTIC DISSOCIATION.

"Let us learn to dream, then perhaps we shall find the truth"—A. KEKULE.

As early as the seventh century B.C. Thales of Miletus (about 640 B.C.) observed that under certain conditions amber (*electron*) possessed the power of attracting light bodies, such as pieces of paper and feathers. Later, it was found that this property was not confined to amber and then the phenomenon became known as *electrikon*—that is, *related to amber*: hence the modern *electric, electrical*. Up to the beginning of the seventeenth century our knowledge of electricity was very imperfect.

In 1600, William Gilbert (1540-1603) published his *De Magnete*, which is "full of valuable facts and experiments ingeniously reasoned on." He showed that a great many substances, other than those previously studied, were electrified by being rubbed, but that none of the metals possessed this property. He was the first to use the terms *electric force, electric attraction, electrics*, (substances capable of being electrified by friction) and *non-electrics*.

Phenomena due to electric attraction and repulsion continued to interest and amuse investigators. Boyle (1628-1691) observed that dry hair is easily electrified by friction, and made an important experiment showing that electric attraction takes place through a vacuum. He writes that "false locks of hair brought to a certain degree of dryness will be attracted by the flesh of some persons. I had proof in two beautiful ladies who wore them; for at some times I observed that they could not keep them from flying to their cheeks . . . . though neither of them had occasion for or did use paint." One of the ladies "gave me leave to satisfy myself farther, and desiring her to hold her warm hand at a convenient distance from one of those locks taken off and placed in the free air, as soon as she did this, the lower end of the lock, which was free, applied itself presently to her hand."

Stephen Gray (?-1736) discovered that metals conduct, while silk does not conduct, electricity, and that conductors can be insulated by placing them on cakes of resin.

Gray's experiment attracted the attention of Du Fay (1698-1739), whose experiments led him to the conclusion that all bodies can be electrified and that the classification of bodies into *electrics* and *non-electrics* was a fiction. Du Fay in 1733 discovered the existence of two opposite kinds of electricity, which he termed *vitreous* (that which remains on the glass) and *resinous* (that which remains on the resin), and also explained that the two fluids of electricity are separated by friction, and neutralize each other when they combine. The one-fluid theory was proposed by Franklin, and to him we owe the terms *positive* and *negative* electricity.

We shall not follow the evolution of frictional and induction machines, the discovery of the Leyden jar, etc., as they do not concern our subject here.

Up to the time of Benjamin Franklin (1706-1790) the only source of electricity was friction, but at the end of the eighteenth century other sources of electricity were known. The phenomena of atmospheric electricity, such as thunder and lightning, St. Elmo's fire, the aurora borealis, etc., have been known from the earliest times, but their recognition as electrical phenomena is due to Franklin (1752).

Wilke and Alpinus (1703) observed that tourmaline from Ceylon became electrified on warming its ends, carrying charges of opposite sign. In 1766 Bergman showed that it was not so much the heat that produced electricity as the difference in temperature between the parts, and that on cooling the charge at each end is reversed. Other scientists showed that other crystals exhibited the same property as tourmaline, and also that electricity—*electricitas spontanea*—was produced when fused substances solidified.

It was recognized from very early times that certain species of water-animals—*gymnotus*, *torpedo*, *silurus*—produced electric shocks stunning animals on the shores. Among those interested in *animal electricity* was Galvani (1737-1798), and it was by accident that he was led to the great discovery of current electricity. In 1780 Galvani's wife was in poor health, and frogs were prescribed for her diet. Galvani himself usually prepared them, and one day when he had taken off their skins, he laid them on a table near an electric machine and left the room. His wife chanced to hold the scalpel near the machine, while the scalpel's point touched the exposed crural nerve of the frog's leg. She immediately observed that the hind legs moved as if the frog were alive while sparks were passing from the charged machine. She called his attention to this phenomenon, and in a short time he was deeply involved in a study of it, considering it as a proof of his pet theory that

*every animal organism was in possession of electricity*, to a greater or less degree, as in the case of the electric eel (*gymnotus*) and certain other fishes, and he hoped through this discovery to be able to penetrate further into the mysteries of life itself.

Galvani's opinions were of startling novelty and astonished scientific men, who repeated his experiments and accepted his observations. Volta (1745—1827), upon further investigation (1794) found that whenever two metals and a liquid are combined to make a circuit an electric current is produced, and that the movement of the frog's legs indicated only the presence of an electric current just like an electroscope. In 1800, Volta constructed his first Voltaic cell, *couronne de tasses* (crown of cups), which consisted of a cup containing brine or dilute acid into which were dipped strips of copper and zinc, and also his well-known Voltaic pile.

As a result of his experiments, Volta distinguished, for the first time, between two classes of electrical conductors. In the first class he included the metals and other good conductors, and in the second class all conducting solutions, and this distinction is, in the main, still recognised. The conductors of the first class may be defined to be such as conduct the electric current without a movement of ponderable matter, and the conductors of the second class, such as conduct the electric current only by means of a movement of ponderable matter.

For conductors of the first class, he framed the *contact electromotive series*—a table of conductors so arranged that if any two of them be connected with each other and also with a conductor of the second class (a liquid completing the circuit) an electric current will flow from the conductor higher in the series through the liquid to the other.

The following is such a contact series :—

Zinc, lead, tin, iron, copper, platinum.

In 1800 Ritter (1776—1810) made a discovery that *this order is the same as the order in which metals precipitate one another from solutions of their salts*. For example, zinc, when placed in a solution of a lead-salt, dissolves and causes the separation of metallic lead; metallic lead of metallic tin; and so on down the series. This identity of the order shows a *relation between electricity and chemistry*. This discovery of Ritter, which may be taken as the seed of scientific electro-chemistry, was entirely unappreciated at the time. Such a series was not framed by Volta for the conductors of the second class since he believed that only slight potential differences were produced at the points of contact of the metals with the conducting liquid.

It must be understood that as early as the eighteenth century it

was known that, by means of electric sparks, metals could be "revived" or obtained from their oxides. That air, other gases, and water were affected by the passage of electric sparks had also been observed. The chemical effect of the electric current was first studied on a large scale after Volta had constructed the Voltaic pile. In 1800 Nicholson and Carlisle showed that on conducting an electric current through water, by dipping the two terminals of a Voltaic pile into it, at one of the terminals hydrogen and at the other oxygen was produced. The fact was not overlooked that the water about the terminal at which hydrogen was produced became *alkaline* and that about the other *acid*.

It was very difficult for the early investigators to comprehend the formation of alkali with hydrogen and acid with oxygen. It was a question with them whether or not the alkali and acid were actually *created* by the action of electricity on water, and this required an experimental answer.

Experiments were first undertaken by Simon and then by Davy (1778-1829), who showed, by a series of very careful experiments, that pure water is decomposed into hydrogen and oxygen by the electric current, without the formation of alkali and acid, and that their formation in earlier experiments was due to the presence of common salt in the water. The net result of his elaborate studies is *Davy's Electro-chemical theory : the atoms of substances by contact acquire different electric charges, and these atoms then attract one another, being oppositely charged*. Hence chemical attraction is but the electrical attraction between the opposite charges which have accumulated upon them, due to their contact with one another. Electrolysis consists in destroying the difference between the charges in the atoms in the compound—the negatively charged atom receiving positive electricity from the positive pole to which it is attracted, and becoming neutral ; the positively charged being attracted and neutralized at the negative pole. The compound would thus necessarily be broken down by electrolysis, since the force which held its constituents together no longer exists.

Berzelius (1779-1848) was beginning his scientific investigations conjointly with Hisinger at the time of Davy's great experimental work. His theory, fundamentally different from that of Davy, dominated the science of chemistry for many decades. According to him, each atom is bipolar, *i.e.* possesses like a magnet, an electro-positive and an electro-negative pole of which one is usually stronger than the other. Consequently an atom behaves as if unipolar, *i.e.* possessing but one pole, either electro-positive or electro-negative according as the positive or

negative pole predominates in strength. It follows therefore that chemical attraction is only the electrical attraction of oppositely charged atoms, and the intensity of the former is conditioned by the magnitude of the latter.

During a chemical combination of two elements, a positively charged atom neutralizes more or less completely a negatively charged one and *vice versa* according to the degree of inequality existing between the magnitudes of these opposite charges. If complete neutralization does not take place, the resulting compound itself is electro-positive or negative according as the electro-positive charges on the component atoms are greater or less than the electro-negative charges. Two compounds, one charged positively and the other negatively, may then combine to form a complex compound in such a way as to form a less charged or neutral one. These charged ones give room for the formation of still more complex substances, such as the so-called double compounds. Berzelius' scheme, in modern symbols, is as follows:—potassium and oxygen combine to form  $K_2O$ , and similarly sulphur and oxygen to form  $SO_3$ . When  $K_2O$  (positive) and  $SO_3$  (negative) are brought together the two unite, because of a residual positive charge on the  $K_2O$ , and a residual negative charge on the  $SO_3$ . This compound  $K_2OSO_3$  can further combine with a similar compound  $Al_2O_33SO_3$ , whereby potash and alum results.

After the establishment of the dualistic theory, no advance was made in electro-chemistry until 1835, when Faraday (1791-1867) enunciated his laws of electro-chemical change—Faraday's laws.—

(1) *The magnitude of the chemical effect produced in a circuit by an electric current is proportional to the quantity of electricity which passes through the circuit.*

(2) *The quantities of the different substances which separate at the electrodes are directly proportional to their equivalent weights and are independent of the concentration and the temperature of the solutions, the size of the electrodes and all other circumstances.\**

We are indebted to Faraday for the present electro-chemical nomenclature. He called substances which conduct electricity associated

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\* This fact is of commercial importance since the same quantity of electricity deposits twice as much copper from a cuprous chloride solution as from a cupric chloride solution.

At the present time there is no reason for doubting the validity of these laws in any case and it holds not only for all solvents but for fusions as well. The quantity of electricity which, according to most recent measurements, is necessary to deposit exactly one equivalent of any conducting substance is equal to 96,540 coulombs.

with movement or conductors of the second class, *electrolytes* and the process of conduction of electricity through an electrolyte, *electrolysis*. The name *electrode* was given to the surface of contact between the conductors of the first and second classes in a circuit. He, as we have seen, assumed that the movement of electricity was associated with a movement of particles of ponderable matter. These particles he called *ions*, those ions which move in the direction of the positive electrode (*cathode*) *cations*, and those which move to the negative electrode (*anode*) *anions*.

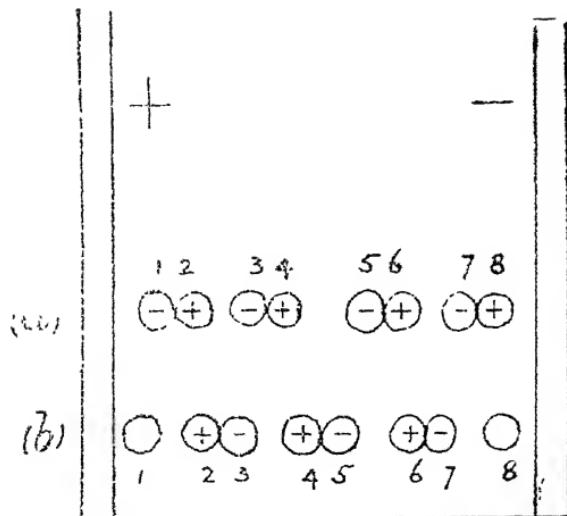
We shall now proceed to the theories advanced at various stages to account for the phenomenon of electrolysis. We know that during the electrolysis of acidulated water, hydrogen is liberated at the cathode and oxygen at the anode. Between the two electrodes is a layer of water particles which apparently undergo no decomposition. The question arose, whether the two gases set free came from the same or from different water particles.

Davy undertook to answer this experimentally. He placed the electrodes in separate vessels and, properly insulating himself, connected the two vessels by placing a finger of each hand in each vessel. Electrolysis took place, hydrogen separating at one electrode and oxygen at the other. In such an arrangement, it is difficult to see how the hydrogen and oxygen could be set free from the same particle of water, and it seems probable that the two gases come from different molecules of water.

A comprehensive theory for the mechanism of electrolytic conduction was put forward in 1805 by Grotthus (1785-1822). The electric current charges the electrodes and these charged electrodes exert an influence on the water molecules, under which they acquire a polarity, the hydrogen being charged with positive and the oxygen with negative electricity. The positive electrode then attracts the negatively charged oxygen atom and the negative the positively charged hydrogen, causing the water molecules to orient as noted below (a).

When the electromotive force applied to the electrodes is great enough, the attraction exerted on the atoms 1 and 8 nearest the electrodes causes decomposition of their respective water molecules. These atoms move to the respective electrodes, where their charge is neutralized by the charge on the electrode and it assumes the form of electrically neutral gas. The oxygen and hydrogen atoms 2 and 7, which are now free in the solution, combine with the hydrogen and oxygen atoms 3 and 6 respectively, forming new molecules of water by rearrangement. The action continues with the other water

molecules, arranged as represented in the row (b), again oriented to the condition of row (a). The distinctive feature of this theory is that before the current is passed, each hydrogen atom is combined fixedly with a definite oxygen atom, from which it never parts company. *The first function of the current is to decompose the water molecules, before any electrolysis takes place.*



*(To be continued.)*

T. S. NATRAJAN.

## TEACHERS AND TRAINING.

So much has been said and that so often on the training of teachers that it may seem well nigh superfluous to say anything more about it. But the last word on the subject has not been said nor will ever be, if we believe in human progress. A few observations, therefore, may not be out of place here.

It may be conceded at once that noble and heroic efforts have been and are being made by those responsible for the education of the young to staff the schools with trained teachers, though as yet but few schools have had the advantage of possessing any of them. Even supposing that all the schools are staffed with trained men, the difficulties in the way of efficient education will not have been entirely overcome. There are other aspects of the question which are of greater importance and which are imperative in their demands for careful consideration and early solution. For what can the best trained teacher do in the absence of certain necessary aids to the practice of his calling?

The question as to what exactly is expected of a teacher is one on which divergent views are held and these views may have been based on the conception of education each one holds. If education means, as is popularly supposed, the storing of information on a variety of subjects then the teacher's task is exceedingly light and no training need be given. But if on the contrary education means, as it should mean, a '*leading out*,' that is a homogeneous development of all the faculties inherent in the individual so that he may be of the greatest advantage to himself and to society, then the task of the teacher is stupendous; and no teacher, unless he is a born one, who is not thoroughly trained can discharge his responsible duty with any degree of efficiency.

Is it enough then to employ a number of trained teachers in our schools? Can we, by so doing reasonably hope to achieve the end in view? The answer to these questions is an emphatic 'No.' If educational efficiency depended solely on the employment of trained teachers then the day would not be far distant when every school would sparkle with efficiency. Training does undoubtedly improve the teacher, but a knowledge alone of the technique of the art of teaching will not carry him very far. There are other factors that contribute to the production of an efficient teacher.

In the first place a trained teacher is not necessarily one who possesses a sufficient amount of general information on a variety of topics. To do his work successfully he should possess a more than adequate amount of useful information. In fact, a teacher cannot have too much of it, although he may make use of only a fractional part of what he knows in actual teaching. The graduate and under-graduate teachers may be supposed to have some kind of general culture though there are many disappointing cases even among these; but the great majority of primary grade teachers give little or no evidence of possessing more knowledge than the pupils whom they are supposed to train. They can hardly grasp even the broad principles of applied psychology and the training they receive is often that of a mechanic, and it is somewhat sad to reflect that it is such a man that has to lay the foundation for education. The evil is fully recognised in Mysore and suitable remedies are being considered with a view to improvement in the quality of the teacher. Instead of a year's course it is proposed to give this class of teachers a two years' course. The question, however, is not free from many practical difficulties. General culture must first be secured before training is given.

In the second place, the teacher, even the best trained one, should have a peaceful, hopeful and cheerful mind and all that such a mind connotes. If such a state of mind is important and necessary in any sphere of human interest, it is infinitely more so in the sphere of education. There is scarcely a public utterance of any note on the teaching profession that does not contain a confession of the inadequacy of encouragement given to it and the expression of an earnest, sincere and sympathetic desire to improve matters. But what is the result? Here again there are practical difficulties in the way, and time and circumstances alone can bring about the desired change. All the same, so long as the merciless 'necessities of life' exercise control over the spirit of enthusiasm, it is idle to expect the teacher to show that he is more than human. Even a word of commendation is sometimes denied to him with the result that the teacher, alive as he may be to his ability and sense of duty, throws up his hands in despair and becomes supremely indifferent. Such a man, however, counts as a trained teacher for purposes of statistics, although in effect he is perhaps worse than an untrained one. A trained teacher should therefore be made to evince enthusiasm for his work by suitable means.

In the third place, a trained teacher, if he is to do his work satisfactorily, should have the necessary educational appliances. Instances are not wanting in which the trained teacher has been unable to give

the full benefit of his training to the schools to which he is attached for the reason that no appliances are available except those with which his powers of improvisation have supplied him. The magic name 'trained teacher' cannot accomplish everything as is often half consciously and wrongly supposed!

It is thus obvious that a trained teacher's usefulness varies according to the degree in which the elements referred to above are present. To ignore the importance of these elements is to court certain disappointment. Too often the training has a monopoly of attention while the practical application of it is left in the background. In thinking of the means, the end is forgotten!

From a general survey of the existing conditions one cannot hesitate to say that achievements in the field of successful employment of trained teachers have not kept pace with the ideas of improvement which are issuing forth in such volume and in such quick succession. While nobody denies the advantages of having ideas and ideals, it is a question whether it profits anybody to keep constantly evolving ideals at the sacrifice of much that is of immediate practical value and that may eventually lead to the realisation of the ideal also. No system of training that is not thorough and does not lead to its destined end can lay claim to any high merit. But the prevailing tendency in this as in other spheres of human activity is to become grossly mechanical and as this tendency develops, the human element and with it the goal consciously aimed at recedes more and more until disruptive forces are all that are left of the original creative force. This is neither an extreme nor a pessimistic view. If training is to serve fully the purpose it is intended to do, it should not be forced to effect an easy compromise with expediency. While every effort should be made to push on vigorously the building up of national education, care should be taken to see that real and substantial progress is actually made in the first stage before proceeding to the next. For truly then will the structure of the edifice be safe and sound.

K. KRISHNA RAO.

## REPORTS ON GAMES AND PHYSICAL CULTURE, 1919-20.

### (1) MYSORE.

EDUCATION has been defined as the development by training and self-training of all the powers of a student under the impulse of a social ideal, and its object is not mere preparation for bread-winning (essential as this is), high technical skill (good as this is too), or even learning, but the flowering of a human being in health of body and strength of character, with a passion for service and skill to serve. In short, the end of education is the making of a citizen worthy of his home, his university and his country. Such an education comes not alone from professors or tutors, nor alone from diligent study in libraries or work in laboratories, or from reflection and introspection, but also in a great measure from the social character, the conscious or implicit purpose of the community to which a student belongs, and the resulting environment in which he moves. This is for most students the chief influence which forms habit and character in youth.

No educational system then is complete if it does not give due consideration to the social aspect. Looking at our universities in general one finds that students are attached to them by few associations which appeal to their affectionate regard for their Alma Mater. A university as such hardly comes into a student's life except in awarding or refusing a certificate or a degree. That is to say, students remain throughout mere intellectual acquaintances and have little more than formal business relations with their professors and lecturers. A man may be a member of a university and take his degree without ever having read any books other than the texts and notes; without ever having exchanged a single word outside the class-room with his teachers; without ever having spent a single moment on games; and, worst of all, without ever having belonged to a single club or society—in short without ever having had any real interests in which two people can associate. To him a casual association in crowded class-rooms for a few hours in the middle of the day constitutes the only corporate life which a college suggests.

Many educationists feel keenly the absence of student activities and a corporate spirit in our schools and colleges. These activities, they observe, serve not only to vitalise the community of students but also to counteract the effects of academic aloofness and intellectualism. One can

imbibe a loftier culture from the tradition of a university than from its lecturers, and a healthy tradition is merely an outcome of the corporate life of its members. Hence it is one of the basic conditions of a healthy cultural life that there should be in a university other organisations and activities besides those which meet only the intellectual demands of the community.

In most of the western universities it is college athletics that at once strengthen and express this corporate spirit most characteristically if not most fully. But in our country physical education is in a deplorable condition in spite of its being repeatedly talked of in very eloquent language. Many acknowledge that the present system of education is detrimental to health and attribute this weakness partly to the system of examinations on account of which "robust youths break down at the end of five or six years of continuous work. That the graduates fade after their academic success is due to this system of education." Others are of opinion that the parents are prone to exact their full money's worth by prescribing all work and no play for their boys. Being worn out by financial worries and spurred on by the natural desire that their sons should come to the assistance of the family exchequer, the parents often goad them to concentrate all their energies on the passing of examinations. There are again some who trace the physical deterioration of students to insufficient and improper food. The expense of education is so heavy that a father can hardly spare a single pie for the proper nourishment of his sons. Many students cannot get even a little tiffin in the afternoon after three or four hours of hard work in the college. The problem of proper diet for students is a matter deserving expert investigation. A restaurant is being opened in the University Union so as to enable our students to get healthy and nutritious food at a reasonable rate. Finally, it is a well-known fact that a good many of the students take no regular exercise, though some of them gently swing dumb-bells for a few minutes in the morning. The explanation is that most of them have had few opportunities of playing games as school-boys. When they enter the university they are reluctant to begin any game. Being somewhat sensitive to ridicule they are nervous of playing games in which they are inexperienced and incompetent. This is all the more to be deplored because "healthy recreation is a safeguard not only against physical break-down but against mental and moral aberrations." In the absence of private initiative and organisation in solving this vital problem the community naturally looks to the educational institutions, which are the nurseries of the youth of the country, to take the lead. Some institutions have

no doubt worked up schemes of their own on a modest scale; but it is all too modest. To bring this department to life does not imply that every school and college should at once be converted into a gymnasium, and that all distinctions between a class-room and a play-ground must be abolished. Far from it. But genuine attempts are to be made, in all educational institutions of all grades, to bring about the physical rehabilitation of our youths. If this is not done, our universities, instead of fostering the life of their alumni, will stifle it, and one can be sure of having in the universities a perennial supply of students whose only companions will be their text-books, and whose only activity will be reading. Here is a picture of a representative student, whose life, you will find, is anything but worth living.

"He gets up at 6 o'clock in the morning, and immediately dressing himself (which after all is not a very long process) starts work. From 7 to 10 you will see him grinding away at his notes and texts. At 10 he gets some food and goes off to college for four or five hours of lectures. He comes back to his mess in the afternoon, and till 5 is usually found engaged in animated discussion with his room mates, or devouring the newspapers, which is his only form of recreation and his only bit of excitement. At 5 he will go out for a short stroll. This is his one piece of exercise, if such you call it. He returns at dusk to his stuffy room, and continues to work, except for a short interval for his evening meal, until he goes to bed, that hour depending upon the proximity of the examination. Surrounded as he is by manifold anxieties, and housed under dreary conditions, the student tends to become moody and depressed and absorbed in himself and his prospects. He needs therefore, more than others, recreation and diversion."

These facts suggest that there is need for a more systematic and individual attention to the health and physical condition of the student. Removed at an early age from the control of his home, and thrown on his own resources in making friends, he has none to watch or guide him. At this critical point in many a young man's life the knowledge that he would be expected periodically to undergo physical examination by an experienced and kindly medical man would exert a bracing and preventive influence.

After becoming acquainted with the condition of student life in general we are in a better position to appreciate the far-sighted policy of our benign Government, which has inaugurated a scheme for the physical regeneration of our youths concurrently with their intellectual advancement. It is the desire of Government that the scheme

should supplement the course of instruction now imparted to the students. It is unnecessary to remark that the scheme is in its infancy and many of its departments have not yet seen the light of day. Many a month may elapse before the long-expected swimming ponds and the gymnasium are ready for use. The scheme for the introduction of an indigenous system of physical exercises and wrestling which has been proposed has yet to be approved and sanctioned. More than all a separate training corps must become an accomplished fact. So the beginning which the scheme of physical culture has now made is anything but humble.

So far as this year is concerned our activity was confined mainly to a few popular games. With available resources in the form of men and money we were able to commence our activities late in July and keep them up to the middle of March. The first few weeks were spent in organising various games and arranging a number of practice matches chiefly between the freshmen and the others, between day students and boarders, and between senior students and juniors. About the second week of September inter-class athletic contests in field sports such as jumping and running were held. During the Dasara week most of our athletes were engaged in competing for various trophies. In this week for the first time in the annals of the College the old and the present students met one another in the playground, and the pleasant mornings thus spent will ever be fresh in the memory of those who shared them. With the re-opening of the college early in October inter-class tournaments in tennis, cricket, football and hockey were announced; and, though delayed by the threatened outbreak of plague in the vicinity of the Hostel (causing much anxiety to the authorities and much more annoyance to the boarders when they had to get inoculated), they were successfully carried through. These contests kept us engaged till the end of December. The final matches were reserved for the New Year, and gave the finishing touch to our athletic activities.

The number of students who entered into these competitions is not at all discouraging, considering the fact that this is the first time that such contests have been held in the College.

H. KRISHNA RAO.

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#### (2) BANGALORE.

WITH the introduction of the Physical Culture Committee by the University, the Central and Engineering Colleges, which were already closely allied in respect of a common laboratory, were brought into more intimate contact on the sports fields, where acquaintance always

develops into healthy friendship. The "combined purse" gave rise to combined teams for football, cricket and hockey. The number of tennis courts increased to five at the outset, but one of them had to be closed as it was situated amidst a large number of trees. This shut out many possible memberships, and it is hoped that before the next academic year\* two more courts will be added, not only to give chances for those eagerly waiting to take part in the popular game, but also to accommodate a few "old boys," to enable them to keep up their interest in the parent institution—an association very desirable for many reasons.

The lack of good grounds has been keenly felt by the Bangalore colleges, more especially as new buildings are simply crowding in, driving out the sportsmen from the college precincts. Fortunately the Government have very kindly given a big piece of ground in the Cubbon Park near the Public Library, and this will be put in order for football, cricket and hockey before the close of the year.\* As soon as this is done, the combined colleges will be able to command more than one team in every form of sports.

Unlike the Mysore section, which has a full-time Director as the Secretary of the Physical Culture Committee, the Bangalore section has an Honorary Secretary—Mr. M. G. Sreenivasa Rao, Professor of Organic Chemistry—who does the work in addition to his regular duties. The President of the Committee, Mr. E. P. Metcalfe, has given much attention to developing the new institution on sound lines, and has been liberal, as in past years, in his contributions to make the several sports events a success. A good number of matches were played by the cricket, hockey and football teams, notably in the "Narayan Rao Memorial Cricket Trophy" competition, in which the team was beaten in the final match. The hockey team was knocked out in the second round by the "All India Hockey Team," and the football team was defeated in the semi-final round of the competition for the "Central College Students' Football Trophy." The ill success of our teams is due to the fact that many of the players, being final year students, could not afford enough time for practice for the matches, which came as late as February.

It is viewed with some amount of nervousness that with the graduation of some of the members this year the several teams may be left poorer, especially as the High Schools and the University Entrance Classes, which should function as tributaries to the University in athletics as in intellectual matters, have not shown signs of being able to fill up the vacancies created by the out-going players,—chiefly for want of proper encouragement of sport in the mofussil schools.

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\* This report was written in March —Ed.

The University kindly provided a small fund to enable the college teams to tour in the mofussil with a view to probing the resources of the several High Schools and determining the number of sportsmen the schools might send to the College in future years to take the places of the players leaving us after graduating. It was found to our great disappointment that the schools, except that of Chickmagalur to some extent, were simply accumulating their sports funds, instead of using them for the purposes for which the students paid such fees. We found that some of the schools had no sports materials, and the way the schools and townsmen rose to the occasion during our visit showed that there was no lack of enthusiasm but only of these materials. We visited Chickmagalur, Channapatna, Tumkur and Mysore ; and seeing that it did these schools much good, and that it created a necessity for the school authorities to maintain proper teams, we wish we had had time to visit more places. At any rate, for the important reason that the High Schools should regularly, year after year, furnish their quota of sportsmen to the constituent colleges, we hope that the University will urge the Bangalore and Mysore colleges to send out their teams to the several high schools periodically, so that these schools may be brought to realise their responsibilities in this direction. One year the Mysore teams might visit the same towns as the Bangalore teams did the previous year, while in the same year the latter might, with advantage, visit such schools as the Mysore teams have no occasion to visit. By such a rotation of visits they will be able to foster a love for sports in the mofussil. It may not be out of place for the University to request the Education Department to utilise fully the sports fees, accumulated in past years and collected in future, entirely for sporting activities.

Another important feature of our activities this year was that three outside teams from Anantapur and Coorg came to play us on our grounds. The home teams were more than a match for them. The several teams held "socials" as usual, at the close of the academical year ; and these were quite a success, owing to the enthusiasm of the students, especially the office-bearers of the cricket, football, hockey and tennis clubs, and of the President, Mr. Metcalfe. We wish good luck to our cricket, football and hockey captains, who will probably leave us for good this year on graduation : they have done very good service in keeping up the high level of play in these games, and our thanks are due to them.

## THE UNIVERSITY UNION.

READERS of this Magazine are aware that University Unions are being established in both the University centres Mysore and Bangalore. The Bangalore building will not be ready for some time, but that in Mysore is now occupied. We desire here to report progress, and to urge all those who are eligible for membership, which is by no means confined to students, to join the Union, *and to use it*, thus by their association fulfilling the Union's wider purpose and conferring the greatest benefit upon the collegiate members.

The buildings in Mysore and in Bangalore are identically planned, and the plan is admirably adapted to the end in view. There is a large and airy reading-room (in Mysore an exceptionally good selection of periodicals is subscribed for), a games room, a restaurant, and most important of all a large debating-hall on the parliamentary model. In Mysore the reading-room and the games-room have been open since January; debates are held fortnightly, on Fridays, the intervening Fridays being used for literary meetings, and so on; and the restaurant is expected to be opened by the time this note is read. It is very badly needed: it would be hard to exaggerate the injury done to the health of students owing to the difficulty of obtaining, except in the Hostel, satisfactory food at a price within their means. The Union restaurant will be carefully supervised, and it will be made just to pay for itself. We are sorry that it could not be opened precisely at the beginning of term, but the building has only just been made fully available, while also the restaurant is a difficult thing to run and must await its sub-committee. The election of the Union's first Executive Committee has been a complicated business, owing to the processes of enrolment of outside members and of sending out, first, lists of members that committee-men might be proposed, next of voting-papers, and finally of supplementary voting-papers to settle an unfortunate tie. Now comes the meeting of the general body to elect those committee-men who shall represent it—this being impossible till all sections had chosen *their* representatives. Only after all these things are done can sub-committees be formed, and thus the work which falls to certain

sub-committees is held up, though in other cases the Principal and the President have been able to set things going. The difficulty will be felt in no year but the first.

All fellows of the University, all members of faculties or boards, all registered graduates, are eligible for membership, and they have all been sent an invitation to join. A fair number of them, in various parts of the State, have done so, while the great majority have not. We would earnestly ask that *every eligible person* may become a member—and that now. It is not so much our need of subscriptions (though of course we do need them, since there are innumerable ways in which the usefulness of the Union may be broadened). What we most desire is that which is so conspicuously lacking—a bond of union, and an opportunity for friendly association, between graduates in the State on the one hand and on the other the present students and the members of the College staff. Staff as well as students feel their isolation amid the practical energies that are making Mysore great. The University's contribution is the complement of that made by the practical services, and contact between University and services is essential to both and to the State. The Union provides the only constant opportunity for this that has ever been given. Equally desirable is association between the University and the non-official professional men of the State. It should be noted that in order to become a member of the Union it is not necessary to be a fellow, a member of a board, or a registered graduate, since there is provision for the admission of others approved of by the Committee. The Committee can hardly but welcome to membership anyone who is truly interested in student life.

A number of those who have already joined the Mysore branch, which alone, as we have said, is open yet, are residents of Bangalore. Many Bangaloreans, however, hesitate to join because the Bangalore branch is of course intended for them. We believe it is the case that the Bangalore building will not be ready in the course of the current academic year. All eligible residents of Bangalore who occasionally come to Mysore are urged to join the Mysore Union, and *to use it when they are in Mysore*. When the Bangalore branch is opened membership of one branch will carry the privileges of the other, and if it does happen to be opened this year Bangalore members (and their subscriptions) will be transferred.

We make a special appeal to teachers in schools. Many of them desire closer association with the University. Some—the Entrance Class Lecturers—live in a kind of borderland between school and university. But a considerable number of those also who teach only in the high school

classes are distinguished university men, or men of academic leanings, and just the right sort of people for students to consort with day by day. They will do the Union good by coming to it, and will get good from it; and the closer we can bring school and university the better for education and citizenship in the State.

Finally, will not those who have already become non-collegiate members of the Union attend it more frequently—not merely attend its meetings but come and hobnob with other members there? They will receive a warm welcome from the students.

The annual subscription of a fellow or a member of a board is Rs. 5, of a registered graduate Rs. 3, and of a “person specially approved by the Union Committee” Rs. 5. Ex-students of the University who have failed in the B.A., B.Sc., or B.Com. Degree Examination will be admitted as students. Subscriptions should be sent to the President, Mr. J. C. Rollo, Mysore.

J. C. R.

## REVIEWS.

*Early History of Vaishnavism in South India.* By S. Krishnaswami Aiyangar, M.A., Professor of Indian History and Archaeology in the Madras University. Oxford University Press. Re. 1.

THIS work embodies the fourth course of Madras University Special Lectures delivered by the author. The author's first-hand knowledge of Tamil literature from which the history of South Indian Vaishnavism has to be recovered invests him with special authority and qualifications to deal with the subject. He traverses some of the positions taken by that grand old man of Indian research and veteran Orientalist, Sir R. G. Bhandarkar, in his work on Vaishnavism and Saivism contributed to the Encyclopædia of Indo-Aryan Research. The evidence conclusively shows that the great Ramanujacharya was preceded by a succession of Acharyas and these latter by that of the Alvars or Saints. The controversy rages round the order of their succession. The author discusses the question of the age of the Alvar Kulasekhare on the basis of the available literary and epigraphic evidence, the position of Nam Alvar, and gives an account of the first Alvars with a discussion as to their possible age. According to Sir R. G. Bhandarkar, the history of Southern Vaishnavism dates from the first century A.D., the Alvars flourishing between the 3rd and 9th century. Prof. Krishnaswami, from the evidence furnished by a recently published Tamil work entitled "Paripadal," claims greater antiquity for South Indian Vaishnavism.

It may be noted in this connection that the antiquity of Vaishnavism in Northern India which is generally claimed on the basis of literary evidence alone is confirmed by important epigraphic evidence recently published—From the significant but somewhat isolated reference to Krishna-Devakiputra in a passage in the Chhandogya-Upanishad (III, 17,6) and the less doubtful references of Panini to the deification of Vasudeva and Arjuna, we come to the absolutely certain evidence of Patanjali in his references to both Vasudeva and Baladeva and even to the five Pandava brothers. But even this inherent uncertainty of literary evidence has been removed by the Garuda pillar inscription at Besnagar of the 2nd century B.C., erected for 'Vasudeva The God of

gods' by Heliodorus, a Taxilan Greek who calls himself Bhagavata, *i.e.*, a convert to Vaishnavism. In addition to this, the fragment of the shaft of another Garuda column now preserved in the Besnagar Museum has been discovered to bear an inscription referring to another Bhagavata, or Vaishnava donor, as pointed out by Mr. Ramaprasad Chanda (No. 5 of the memoirs of the Archaeological Survey of India.) The Gods Sankarsana and Vasudeva are also mentioned in the Ghasundi stone-slab inscription and in the Nanaghat cave inscriptions of the 2nd century B.C., while Bhagavan Vrishni is mentioned in the Mora stone-slab inscription of the Mahakshatrapa Raju-vula belonging to the 1st century B.C. There is, lastly, a fragmentary stone inscription of the time of the Mahakshatrapa Sodasa, which refers to the Mahasthana of Bhagavan Vasudeva, which is to be identified with Mathura (*Ibid.*) While Mr. Chanda's work makes an important contribution to the determination of the antiquity of northern Vaishnavism on the basis of the solid testimony of stones, Prof. Krishnaswami Aiyangar's work is of great importance in pushing back the chronological limits of South-Indian Vaishnavism on the basis of a systematic study of published and unpublished Tamil works and inscriptions. We heartily wish many more such additions to the Madras University Historical Series.

R. K. M.

*An Anthology of Recent Poetry for Schools.* Compiled by L. D'O. Walters.

Harrap. 1/6 net.

SETTING aside all notions of education, this should be a book of pure delights for children of all ages. If fate decrees that it shall be prescribed as a school book then it is to be hoped that it will not suffer from the dry dissection of the class room.

The compiler manfully shoulders the burden of responsibility for the choice of poems that has been made; but none will be likely to carp at any of the selections, though some may think of desirable additions.

From the child's point of view, (if one may presume to guess at it) the poems are all delightfully short and easily memorised; they nearly all sing themselves; and the scope of their subjects touches in many places the likes and dislikes, the interests, the imaginations, the humour and the aspirations of childhood and early youth. They endeavour to express the elemental thoughts that are lost in complexities of learning, but which are the groundwork for the great discoveries and wondrous

conceits of children. There are perhaps few poems in the book that will strike a more familiar note than Rupert Brooke's "Great Lover":—  
These I have loved :

White plate and cups, clean gleaming,  
Ringed with blue lines ; and feathery, faery dust ;  
Wet roofs beneath the lamplight ; the strong crust  
Of friendly bread ;

.....

Then the cool kindliness of sheets, that soon  
Smooth away trouble .....

James Stephens' "When the leaves fall", Drinkwater's "Town Window," Flecker's "November Eves" are other poems that will quickly find an echo in the thoughts of early years.

Among the poems for younger children there are very charming verses by Marion St. John Webb, by Queenie Scott-Hopper and by that prince of nursery rhymesters, Walter De la Mare. Every child will appreciate Rose Fyleman's "I wish I liked rice pudding", (I wonder what is the Indian equivalent for that wholesome but maligned dish), and the two poems by Patrick Chalmers. Chesterton suggests mystery in the commonplace donkey, and Irene McLeod sings of "The Lone Dog" whose near relation in India is the stray "pi."

The dainty beauty of her "Cradle Song" represents Sarojini Naidu at her best, and Thomas Hardy's "The Oxen" goes to prove that a sceptic has other tendencies besides that of mere denial.

The two poems contributed by the author take rank with the best in facility and charm and word-aptness :—

"I am sway of the rolling hills,  
And breath from the great wide plains ;  
I am born of a thousand storms,  
And grey with the rushing rains."

Belloc's "The South Country" has long made its appeal; but for sheer delight and swing and vigour there is little to compare with John Masefield's three poems, particularly "Sea Fever":—

"I must go down to the seas again, to the lonely sea and the sky,  
And all I ask is a tall ship and a star to steer her by ; [shaking,  
And the wheel's kick and the wind's song and the white sail's  
And a grey mist on the sea's face, and a grey dawn breaking."

To quote the Editor, "in this anthology boys and girls will find poetry attuned to the spirit of their own age," and they "may realise that poetry is a living thing" and *their* inheritance.

*Coleridge, Biographia Literaria, Chapters I—IV, XIV—XXII. Wordsworth, Prefaces and Essays on Poetry, 1800-1815.* Edited by George Sampson, with an Introductory Essay by Sir Arthur Quiller-Couch. Cambridge University Press. 10s net.

MR. ARTHUR SYMONS called the *Biographia Literaria* "the greatest book of criticism in English," while in moments of baffled irritation the reader thinks rather of Coleridge's own phrase for it—"an immethodical miscellany." Of biography, of course, it contains little. Its criticism varies in interest and value—from the disconnected chapters on the distinction between fancy and imagination to the magnificent treatise on the language of poetry, in relation to the Lyrical Ballads, their reception by the critics, and Wordsworth's inadequate and somewhat misleading vindication of them. Coleridge held that the "unexampled opposition" met with by Wordsworth's poetry was primarily due not to anything in that poetry itself but to the critical remarks which Wordsworth prefaced to the *Lyrical Ballads*. For Wordsworth would never listen to a critic, or modify an opinion; his poetic diction argument goes so far that its essential truth is lost sight of in obvious fallacy; and he lacked Coleridge's faculty for thoroughly systematised and coherent criticism. By far the most valuable part of the *Biographia Literaria* is that in which Coleridge, somewhat estranged by that time from Wordsworth, but still profoundly revering him and still perfectly fair and generous in his judgment, exposed the weaknesses of Wordsworth's theory and at the same time vindicated beyond all answer the new departure in poetry. It is that section of the *Biographia* which, with a few additions, and with an admirable summary of each omitted chapter, is given in this edition. Wordsworth's Prefaces and Essays are given also, the whole matter thus being displayed. Sir Arthur Quiller-Couch's *Introduction* deals, in his peculiarly vivid and suggestive fashion, with the Wordsworth and Coleridge intimacy, with the strange problem of the death of Coleridge's imagination, and with the necessity for Coleridge's criticism of the Wordsworth theory. Mr. Sampson annotates the *Biographia*, (and who knows better how to combine brevity with helpfulness?) ; points out, as far as is required, the differences between Wordsworth's finally revised version of his criticism (the version given here) and the earlier texts which Coleridge had before him; gives a full biographical account of the "stages in the growth of *Biographia Literaria*;" and provides a convenient list of the writings of Coleridge and Wordsworth up to the date of that work. The whole forms an admirable introduction to critical method, to the study of poetry, to the personality and the work of Coleridge, and to that

great poetic innovation for which, partly *because* of their differences of view and endowment, their mutual influence and their united efforts did so much.

J. C. R.

*The Books of Haggai and Zechariah.* By T. W. Crafer, D. D., Professor of Theology at Queen's College, London. *The Revised Version edited for the use of Schools.* Cambridge University Press. 3s.

THE literature of the Old Testament has for its backbone the history of the Jewish race from the earliest times until the period preceding by a century or two the Christian era. For a comparatively brief part of that history, *viz.*, from about 1,000 B.C. to 586 B.C., the Jews were organised as a kingdom occupying the southern part of what is now called Palestine. In the latter year the kingdom was laid waste by the Babylonian Empire, and all its effectives were deported to the lands of their conquerors. Jerusalem and its temple were burned and laid in ruins. In 539 B.C. the Persian Monarch Cyrus captured Babylon and added its territory to his dominions. He restored to their own lands such of the subjugated peoples as were desirous of returning there. Under his regime many of the Jews returned to Judæa, and the main interest of the history of the succeeding period lies in the attempts at the reconstruction of their national and religious life which were made under the leadership of four men whose names stand as the titles of books of the Old Testament—Ezra, Nehemiah, Haggai, and Zechariah. The two latter are described as ‘prophets.’ A distinguishing feature of the Jewish history is the way in which the kings and politicians were guided and criticised by religious advisers, some of whom were priests and some prophets. The priests had an official standing, and, as a rule, represented the more traditional and formal tendencies in religion and state. The prophets were unofficial and their attitude was often regarded as revolutionary. Certainly they were for the most part found in an attitude of criticism and protest. They represented the living and progressive element in religion, and its adaptation to the needs of successive periods in the life of the nation. From another point of view, they were concerned with the bearing of religion on vital morality, and they taught the primary importance of truth and faith and the secondary value of traditional institutions and of ceremonialism. The stream of prophetic activity had its culmination in the life and teaching of Jesus Christ, while the priestly institutions deteriorated to their nadir in the hypocrisies and sophistries of his judges, Annas and Caiaphas.

Haggai and Zechariah are interesting as being prophets who were chiefly concerned in the rebuilding of the temple and the re-establishment of the outward rites of religion in the period following the exile. They thus shew us that prophetism was not a blind habit of protest. Outward observances of religion are a necessity of the life of men on earth. It was as essential that the temple should be rebuilt as that the devastated houses and streets of the city should arise again : the Church must be reconstituted with the State. Haggai's brief prophecy in the year 520 is an appeal to the people to abandon their listlessness and proceed vigorously with the rebuilding of the temple. At the same time he bids them look to God to crown the material edifice with the gift of spiritual and moral power. Zechariah was contemporary with Haggai. He appears to have been himself a priest, but with the prophetic spirit and outlook. By means of a number of visions he sets before the people the spiritual realities which underlie the forms of religion. The second half of his book is almost universally believed to have come from another author, perhaps from several authors at a slightly later date.

The little volume under review is one of a series issued by the University of Cambridge for use in schools. The Revised Version of the Old Testament, published in 1881, is used as the text, and the notes are well adapted to their purpose. They presuppose such familiarity with the Bible as is to be looked for in the students of middle-class schools in England. The author points out the value of this old-world teaching for the present day in which so much of national and religious life has to be reconstructed after the devastation of war.

H. S.

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*God the Prisoner and Other Lay Sermons.* By Helen Wodehouse, D.Phil.

Allen and Unwin. 5s. net.

THIS is a collection of addresses given on different occasions to the students in Bingley Training College for Women. Though they are unfortunately called sermons, and though they are in essence exhortations, there is no pulpiting about them, but rather they are full of the helpful encouragement of elder comradeship that passes on a simple yet profound wisdom gained in the common striving for happiness and effectiveness.

There is perhaps nothing very new in these addresses. They deal with life's difficulties, which are as old as Adam, and which are shared by the just and the unjust; but clearness of understanding and generosity of soul give a freshness and interest that should find a ready response in any reader. They are broadly Christian, and they are meant

primarily for those whose career is teaching; but they are most particularly human, and their philosophy should hold nothing foreign to any man whose "eyes are in his head." "Give instruction to a wise man and he will be yet wiser."

G. M. R.

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*Roman Private Law*, Part III, Regal Period. By E. C. Clark, LL.D., Emeritus Professor of Civil Law in the University of Cambridge. Cambridge University Press. 21s. net.

FOR many years before his death the late Professor Clark was engaged upon a comprehensive History of Roman Law. The present volume contains the third part of that work, the first part being *Sources and Chronological Sketch* and the second (in two volumes) *Jurisprudence*. Professor Clark's reputation for learning, judgment, and extreme patience of investigation needs no comment. We have not seen the earlier volumes, whose interest no doubt is more exclusively legal than that of the present one; but we may quote two from many appreciative comments. With reference to Part I *The Westminster Gazette* remarks,—“Not only is there no modern student of the subject more familiar with the documents, but there is none that keeps his eye more fixedly upon the relation of cause and effect, or seeks more persistently the practical bearings in connection with jurisprudence . . . The treatment throughout is sleeplessly wary, and only an advanced student appreciates how valuable is such unrelaxing vigilance.” And the character of Part II is sufficiently indicated by the following from *The Glasgow Herald*,—“It is an elaborate, erudite, and leisurely examination of the nature of jurisprudence under constant reference to the Roman Law and the English institutional writers, at once analytical, descriptive, and comparative. . . . Its discursive method admits of wise and full discussion of such problems as the relation of morality to law, and of law to the state, which are of immediate interest to many other persons than students.” The Part before us, besides its value for specifically legal study, has extraordinary interest and usefulness for the student of Roman institutions, and indeed of institutions in general, while even the general reader will find much fascination in its pages. It deals, for example, with the Roman Family, the Gens, the Senate, the Curia, the Comitia Curiata, the Tribune, and the Sovereign. A large section is devoted to the Servian system, and another to the Regiae Leges. In every part there is a precise balancing of authorities, and a virility of personal judgment, that makes the work a model of reserved, judicial and concentrated writing. The historical library and the legal library will find the book an equally desirable acquisition; but indeed there are few people, among those who read at

all, who will not find it useful for reference and delightful for occasional "dipping into." Not even the most rigorous treatment can divest Roman antiquities of romance, and it is a satisfaction to get one's romance on unimpeachable authority.

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*Shri Krishna of Dwarka and Other Stories.* By C. A. Kincaid, C.V.O., I.C.S. D.B. Taraporevala, Sons & Co., Bombay. Rs. 1-8-0.

"I HAVE not attempted," says the author, "to relate all Krishna's adventures. I have selected those which interested me most and seemed most likely to attract others." To these adventures thirteen chapters are devoted, and the remainder of the book contains the stories of Harischandra, the Great Flood, and Gajendra and Hunhu. The facility and charm of Mr. Kincaid's narratives commend this, like his earlier books of stories. It is difficult to lay down the book, so vivid is the narrative, and so pleasant its manner; and style and vocabulary are so simple that a very young schoolboy will find it quite easy to read. It is admirably adapted for school use, whether as a classbook or as one for rapid home reading. Its pure direct English supplies just the right sort of example. Unfortunately there are a number of little mistakes, which have crept in, no doubt, with the printing. Punctuation has not been properly attended to, words are divided at the end of a line where there is not the end of a syllable, there are such misprints as *baffalo*, *mean time*, *rever-ently*. Was it the printer that made Mr. Kincaid say "it is for you and not I to rule" or twice to use the construction "begged him take," "begged him go"? A certain carelessness has thus badly blemished the delightful little book, which nevertheless—so rare is a slip of importance—we cordially recommend for the uses we have indicated.

J. C. R.

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*The Empire at War: A Short History for Indian Students.* By P. L. Charlier. Oxford University Press. Re. 1-4.

THE author has endeavoured to give in 140 pages an account of the main events of the War, an exposition of its origin and significance, and a clear idea as to many elements of warfare that are little understood by the general reader. Such brevity means a very difficult task, but the author has been remarkably successful in selecting the most salient points, in laying emphasis where it is due, and in maintaining throughout, a simple, eminently readable style which conceals the labour of compression. The book is exceedingly well planned. The narrative of the events of the war is preceded by chapters dealing with the belligerents and their historical relationships, and by a remarkably interesting

and comprehensive account of "modern arms and warfare;" and is succeeded by chapters on "The Diplomacy of the War," "The Conduct of the War," "War Times in the British Empire," "India and the War," after which the significance and the lessons of the War are brought out and a very brief summary of the work of the Peace Conference is given. There are a number of maps and illustrations, and useful bibliographies are provided. It is an excellent and valuable piece of work.

*The New India : a Simple Explanation of the Reforms.* By Sir Narayan Chandavarkar, Kt. Humphrey Milford, Oxford University Press, Bombay. 12 Annas.

In this attractive booklet Sir Narayan Chandavarkar gives an exceedingly clear and simple exposition of the political reforms to be introduced in India in 1921, and sketches their historical setting. The questions which he sets before him are, in his own words—"What are these Reforms? How are they going to benefit India? What good will they do the people? What will the *ryots*, the great bulk of the masses of the population in India, and the poorer classes, in particular gain by them? What is expected of us as lovers of our country and as citizens of the British Empire, so to use these Reforms as to get all the good we can out of them and so attain, as the years pass by, their real and final object?" He shows how self-government has always been considered as the goal of British administration in India, and explains the necessities that rendered inevitable, in India's interests, the long delay. "The result of all these years has been that the British Government has by its work created a 'New India,' asking for a fuller life than of old and claiming the right of her people to govern themselves on the principles of law, liberty, and self-government in accordance with what is best in her ancient civilisation, and with the new spirit created by the British Government itself all these years." He shows the value of the present Reforms as "a first step," and explains why he believes that only that first step is at present possible. He then traces the evolutionary process in Indian administration, tracing "four stages of progress through which the country has marched since the introduction of British rule." Finally, having devoted a chapter to "The Announcement" made in Mr. Montagu's speech in Parliament on the 17th of August 1917, the tour in India of Mr. Montagu and Lord Chelmsford, and the work of the Parliamentary committee, he embarks upon an interpretive analysis of the Reforms themselves, which occupies two-thirds of the book. The author writes from the standpoint of one who deeply feels the value

and significance of the Reforms, both in themselves and as affording an opportunity for the further development of self-government, and his task could hardly have been better done. The wide circulation of the book will do a very great deal to promote understanding, among those who are now to become voters, of the principles involved and of the precise functions and responsibilities of various bodies and the individual citizen.

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*A Manual of the Bengali Language.* By J. D. Anderson, Litt.D., I.C.S. (Retd.). Cambridge University Press. 7s. 6d. net.

THE place of honour has been given to this book in a new series of Cambridge University publications entitled "Cambridge Guides to Modern Languages." Dr. Anderson was one of the most popular "civilians" of his time in Bengal, and possessed with a genuine love for her people which led him to devote a life's study to their language and literature, with a measure of success almost unique among the foreign students of Indian vernaculars. In this connection will be interesting the following passage which I translate from a Bengali letter written to him by Sir Rabindranath Tagore and reproduced in the book under notice in the poet's handwriting in facsimile.—"When you write to me letters in *English* I should in return write to you in *Bengali*. Otherwise there would not be a proper answer. To all my English friends I have always to write in English. Fortunately I have got one among them with whom I have no difficulty in giving full and frank utterance to my heart in my own language. Such a rare opportunity why should I vainly miss?"

As is pointed out by Dr. Anderson in the Introduction and by Mr. L. S. S. O' Malley in his *Report on the Census of Bengal*, 1911, Bengali is the native language of nearly 45 millions of people including more than 2 millions in Behar and Orissa. But, apart from this ground of its importance, it has certain intrinsic merits and features which fairly establish its claim to a place among the progressive literatures of the world and to the attention of philologists. This is thus admitted by Dr. Anderson: "As a very old admirer and student of Bengali literature, I may be allowed to express my conviction that the conferring of the Nobel Prize for Literature on Sir Rabindranath Tagore was a belated, and even a too personal, recognition by the West of the merits and charm of Bengali literature as a whole." On the merits of Bengali as a vehicle of modern culture he says: "Nowhere—a significant fact—is Bengali more successful among Indian languages than in its translations of western authors.—How supreme a proof of its literary capacity this fact supplies will be obvious to anyone who has attempted the

perilous task of translations from languages of a type different from that of his own mother tongue."

The method of his treatment of the subject is the modern scientific one of learning languages.—Grammatical exposition is introduced only in the measure in which it is necessary for the understanding of the texts included, while the study of the texts is relied upon to help the student to construct his own grammar as he goes along, and achieve mastery of the idiom.—The texts have been selected with discrimination from a wide range, drawn from different periods and sources, so as to form a fairly representative collection illustrative of the varieties of the Bengali literary style in both prose and verse.

The texts have been given in Roman characters, applying to them the method of transliteration determined by the Royal Asiatic Society of London for Sanskrit. But this in some cases may lead to some confusion and difficulties: e.g., *Rames* (the familiar Bengali name, p. 100) is really the Sanskrit word *Ramesa*, and might have been spelt as such, without making the pronunciation determine the spelling, considering that there is no correspondence between the two in Bengali.—This method has sometimes indeed led Dr. Anderson into mistakes, e.g., *mat* (p. 93) is pronounced as *mata* (meaning *like*), and should have been spelt as such; similarly with regard to *maun* (*ib.*) pronounced as *mauna* (as in Sanskrit meaning *silent* or *speechless*), etc.

On the whole the book will contribute materially to the spread of the Bengali language.

R. K. M.

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#### SCHOOL BOOKS.

*Blackmore's Lorna Doone, abridged and simplified for Indian Students.* By F. R. Tomlinson, B.A., I.E.S. K. & J. Cooper, Bombay. Re. 1-4.

*Lorna Doone* is one of the best of English stories—and one of the longest. Much of it is in dialect. Mr. Tomlinson has reduced the story to a fraction of its original dimensions and eliminated the dialect, as also "all allusions, historical or otherwise, which would be unintelligible to the young Indian." This means, of course, a marring of the book, but it is the only plan by which it can be made accessible to Indian schoolboys. They certainly could not tackle the original, and they will greatly enjoy this adaptation. Fortunately the language has required little alteration, Blackmore being a clear and straightforward writer.—The book is beautifully produced, and is in all respects just the right sort of school-book.

*Macmillan's Graphic Geographies: The British Empire.* By B.C. Wallis, B.Sc., F.R.G.S. Macmillan & Co. 1s. 6d.

THIS is essentially a text-book, and compression is carried to an extreme. It is a book for "getting up," rather than an illuminating study, and it is admirable in its kind. It first deals with the Empire generally, as regards position, towns, peoples, climates, and vegetation regions; and then takes the Empire bit by bit by way of more detailed study. Finally it returns to generalities, and deals competently with the topics of "Feeding the Mother Country," "Clothing the Empire," and "Imperial Trade." Everything is very brief, precise and carefully ordered, and as a manual for examination work the book may be cordially recommended. Its large pages give room for a great number of excellent maps, and systematic work is aided by the provision of exercises at the end of each section.

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*Map Studies for Schools. India.* By J. E. Parkinson. K. & J. Cooper, Bombay. As. 10.

MR. PARKINSON, who is Vice-Principal of the Central Training College, Lahore, has produced a most useful companion to geographical studies in schools. As he remarks in the Preface, "Map-reading is becoming more and more important in the scientific study of geography. By a study and comparison of a series of maps of a country many causal relations can be seen and these relations can be applied to other countries where conditions are similar." The maps with which the book is lavishly provided relate to the various geographical topics—winds, rainfall, crops, mineral products, and so on. Each map is faced by a series of questions to be answered in relation to it; and at the end are maps of the separate regions of India (one of Burma is included), with general questions. It is a well-planned and well-executed piece of work, and the sort of thing that lends real interest to geography classes.

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*A Class-Book of Organic Chemistry.* By J. B. Cohen, Ph.D., B.Sc., F.R.S. Vol II. Messrs. Macmillan and Co., Ltd. 4s. 6d.

THE book affords an idea of the chemical nature, and the processes used in the preparation and analysis, of organic products, especially such as are of importance to the medical student. Fixed oils, essential oils, proteins, carbohydrates, alkaloids and synthetic drugs are treated in separate chapters without entering into the complicated theoretical aspects of their structure or composition, and the work will act as an incentive to the beginner to take to further studies in this interesting and important branch of Chemistry.

K. S. D. D.

*Johnston's New Era School Atlas.* W. & A. K. Johnston (General Agents, Macmillan & Co.). 1s. net.

*Atlas, orographical, regional, economic. Part I, British Isles.* Same publishers. 1s. 6d. net.

THE name of Messrs. W. & K. Johnston is sufficient guarantee of the excellence of an atlas, whether general or detailed, and these two maintain the firm's reputation for accurate, clear and attractive work. The first contains 40 maps, of the kind suitable for school use, giving quite adequate detail for general use also. The maps are well up to date, plebiscite areas, for example, being clearly marked. An interesting feature is a map on the cover, showing the world as known respectively to Homer, Ptolemy (A.D. 150), Martin Behaim (A.D. 1492), and Ortelius (A.D. 1587).—The British Isles atlas contains 38 maps, 12 figures, and an index, while appended to a number of the maps are small maps, sections, and graphs, giving relevant information. For example, the Economic Map of Wales and the Welsh Margin is amplified by a small map showing distribution of population and by a graph showing relative population per acre in Welsh counties. The first eight maps and the 29th and 30th deal with the British Isles as a whole, thus—

- Map 1. Orographical.
- Map 2. Route Map.
- Maps 3–6. Climatic.
- Map 7. Vegetation and Animals.
- Map 8. Sheep and Cattle.
- Map 29. Rock Structure of British Isles.
- Map 30. Drainage of British Isles in Past Ages.

The titles of certain other maps will serve to suggest the scope of the book—

- Map 15. Trent and Wash Basins. Surface and Route Map.
- 15A. Section across Derbyshire.
- Map 16. Trent and Wash Basins. Economic Map.
- 16A. Coal Production in English Counties in 1912.
- Map 27. Rock Formation of the Weald.
- Map 28. Roads Radiating from London.

The following are examples of the figures given—

- Fig. 1. Grained Structure of England.
- Fig. 2. Coalfields of Great Britain.
- Fig. 4. Divisions of Surface.
- Fig. 7. Distribution of Population.

## SCIENCE NOTES.

COMPILED BY MR. VENKATANARANAPPA, M.A.

*Progress in Science Teaching.*—Sir William A. Tilden, F.R.S., writing under the above heading in the Jubilee Number of *Nature* traces the development of science teaching in England since the first great International Exhibition in 1851. It appears as though our present condition, so far as science teaching in our schools is concerned, resembles to some extent that of what Professor Tilden calls “pre-scientific” days in England, when the boys made no experiments for themselves but were required to commit to memory passages from the book, such as “iodine has a violet vapour.” There were no school laboratories in those days, even in the great public schools, “neither was natural science so much as mentioned in the great majority of the schools in the country.”

The professor states that the great Exhibition in 1851 set many people thinking, for in 1853 the department of Science and Art was created with the object of assisting in the establishment of local science schools and classes. Many of the first created schools failed and the difficulty at that time arose chiefly from the scarcity of competent teachers willing to undertake the work. A commission appointed for the purpose reported that, in 1875, of 128 endowed schools examined not one half had even attempted to introduce science, while thirteen had each a laboratory, and only ten gave so much as four hours a week to science. It was uphill work and obstruction was rampant, not only among the headmasters but also in the old universities to which the schools passed on their boys.

At the present day, the Professor continues, all the great schools in England are provided with spacious laboratories and an equipment generally superior to that which was to be found in British universities fifty years ago. Moreover, there is now a large body of highly efficient and enthusiastic teachers. But it is to be deplored that there are even now schools where the head-master stands in the way of the development of science teaching; there is the persistent, ignorant demand on the part of the public for those subjects only which are

supposed to lead immediately to remunerative business; there is the almost total ignorance in Whitehall, in Parliament and in the Ministry, of the commonplaces of physical science. All these are circumstances which operate perennially against that kind of recognition of physical science in education which is essential to material progress, and must continue to be the subject of conflict until a state of balance between the advocates of the old and of the new has been established.

The following remarks of this world-famous Professor must not be passed over lightly:—"The syllabus of subjects comprised the whole circle of the sciences, including, besides the various departments of natural and experimental science, logic and moral philosophy, so that candidates were required to show at least a rudimentary knowledge of the subject-matter of various branches of human knowledge of which they would otherwise have remained totally ignorant. My own experience leads me to think that this 'little knowledge' which according to Pope's mistaken aphorism, is a 'dangerous thing' is of great value even to the specialist. A *Doctor* of Science ought, and is supposed, to be an expert in some direction or other, but not long ago I met a London D.Sc. who had never heard of Bishop Berkeley. This curious fact revealed a state of ignorance of all philosophy, and much more, which he would have escaped had the old regulations been retained. This is, of course, now past praying for, and research, which implies specialism, is the order of the day."

*The Cow as a Laboratory.*—It has frequently been difficult to decide whether it was better to feed a cow to be killed for beef or for converting its food into milk; and with the change in conditions which has emphasized the importance of condensed, evaporated and dry milk it is conceivable that the question of whether it shall be animals for beef or a dairy that are to be supported may confront many a raiser of stock.

Dr. H. P. Armsby, an expert in animal nutrition, estimates that the energy of grain used in feeding the animal is recovered to about 18 per cent in milk for human consumption, but only about 3·5 per cent of this energy reaches us in beef. An English official report states that the production of 100 calories of human food in the form of milk from a good cow requires that the animal be fed the equivalent of 2·9 pounds of starch. If a poor cow is maintained, the equivalent of 4·7 pounds of starch must be used to secure the 100 calories in the form of milk, but if 100 calories in the form of beef are obtained from a two and

a half year old steer, it has been found that the equivalent of 9 pounds of starch has been required to produce it. This would mean that a good milk cow returns 20 per cent of the energy value of that which she consumes, the poor milk cow 12 per cent, and a good beef steer but 6 per cent. Thus a poor milk cow is twice as efficient as a good beef steer, while the good milk cow is more than three times as efficient as a converter of energy, from the form unsuited to human uses to that which is available for human food.

Professor Wood, a leading English Agricultural expert, has determined that during the whole life of an animal, a cow returns one twelfth as much food as she has consumed; this return being in the form of milk, veal and beef. The beef animal returns but one-sixty-fourth, or but one-fifth as much during its whole life as does the cow.

It is apparent from this that when the prices for animal food-stuffs soar, we should give more consideration to the efficiency of the laboratory to which we will take this raw material to be converted into human food.

The above considerations are based on protein, fat and carbohydrates only; but when we consider vitamines and mineral elements the cow has an added advantage. The usual parts of grains which furnish vitamines are stored to but a slight extent in the animal's tissues, but they pass on in abundance to the milk, so that coarse foods and grains not suitable for human food are converted into a form which makes it readily available in milk, though not in beef. Meat is also poor in calcium, which is comparatively abundant in milk.

These facts would seem to support the contention that a greater use of dairy products, rather than an increase in the consumption of meat, would become an economical procedure both for agriculture and for the consuming public. However, we need to know more concerning the problem of animal nutrition and its relation to the production of human food, considering the animal as a 'laboratory.—*Scientific American Monthly.*

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*Immunity of Plants to Disease.*—In the United States pure selection has been used to a considerable extent. A plant is noted in a field as being resistant to some epidemic disease which has killed all its neighbours. The progeny of this is then subjected to attack by the same disease, and by a similar weeding-out process a strain is produced which is mainly, if not entirely, resistant to the disease in question. Thus strains of cabbage and tomatoes, resistant to wilt disease, have been raised in this fashion.

It is important to realise that the resistance thus conferred is, like that amongst animals, only to a specific disease, so that a plant or animal may be rendered immune to one disease only to fall a victim to another.

The most important instance of immunity is that of certain potatoes from a virulent disease known as Wart Disease. This disease has been known for some years as a soil pest in certain districts, and is gradually spreading over Great Britain. It is caused by a lowly fungus which may lie in the soil for many years, and as no cure is known for it, it continues to attack potatoes if planted year after year causing ugly outgrowth on tubers and stalk. In a very few years Warts only are found, and no potatoes are formed. The disease is so destructive and widespread that it has been made notifiable by the Ministry of Agriculture, and the movement of seed potatoes from infected districts is regulated. In 1908 an inquiry was made by Geo. G. Gough, who noticed that certain varieties were grown by cottagers and others in infected land without being attacked by the fungus, and this led to trials of different varieties in infected soil. The list of varieties which have proved immune from this disease now contains over a hundred. Although the reason for it is still unknown, the immunity is absolute, and no variety which has been officially classed as immune has taken the disease.

A striking experiment in this connection is to plant side by side in infected soil tubers of two different varieties, only one of which is immune, so that the plants grow up intertwined. The tubers are similar and would not be distinguished by the ordinary person. Yet on lifting the crop at the end of the season, the one that is immune will produce a good crop free from any sign of Warts, while the other may only show Warts and not a sound tuber.

So important and so certain is the immunity that the administration of this disease by the Agricultural Boards in the British Isles is based on the fact, and where the disease is present, only immune varieties of potatoes may be planted. Raisers of potatoes are therefore exerting every effort to produce such resistant varieties having the good cropping and other qualities of those in commerce at the present time, and considerable success is being achieved.—*Discovery*.

*Tobacco Smoking and Nicotine.*—A recent issue of *Chemical News* contains some particulars regarding a series of tests carried out with a view to determining to what extent the nicotine in a cigarette is destroyed in the smoking, and thus finding out how much is inhaled.

The method of procedure adopted was to set up an "automatic" smoker and estimate the nicotine in the inhalation and smoke. The apparatus was carefully designed to imitate the action of a smoker, *i.e.*, the smoke was drawn through the cigarette intermittently and at a speed similar to that at which a cigarette is normally smoked.

The average nicotine content of the cigarette was 20 milligrams (0·3 grain). About 40 cigarettes were taken, of which the water and nicotine content were known from the analysis of an aliquot portion. These were weighed and smoked in the apparatus. The ends were collected and weighed, and thus the weight actually smoked was known. About two-thirds of a cigarette is normally smoked, *e.g.* in the first series of experiments the total weight was 29·7 grams (458 grains), the ends yielding 9 grams; in the second series these figures were 26·5 grams and 9 grams respectively. The two sets of experiments were carried out with two different brands of cigarette widely known in South Africa (where the tests were made). The results led to the conclusion that not more than half the nicotine is destroyed in the combustion and that the remainder (neglecting of course the small amount that condenses in the cigarette end) enters the system.

Put in figures, this means that the average cigarette contains 19 milligrams (0·3 grain) of nicotine; in the portion actually smoked, about 14 milligrams (0·2 grain); of this about 7 milligrams (0·1 grain) enters the mouth.—*Conquest.*

## EDUCATIONAL NOTES.

*The "Mysore Education League."*—Teachers' Associations are born, pine and perish ; but one hopes that this new association, on a somewhat wider basis, will remain and flourish. It was inaugurated on June 25th at a meeting held in the Government Collegiate High School, Bangalore. Its seven enunciated objects are mostly both worthy and attainable, and one in particular is worth a real effort—"to bring into closer intimacy members of the University and teachers in secondary schools." One of the League's purposes contains, however, a threat of evil—"to make a scientific study of adolescence and its needs." This presumably means a special study of "child psychology." The tendency of the day is to let the child be obscured by theories about him. In education a little contact and sympathy is worth all the theorising in the world.—Those who desire to join the League should communicate with Mr. C. Krishnamachari, Assistant Professor, The College of Engineering, Bangalore, or Mr. M. Venkatarama Iyer, Lecturer, Collegiate High School, Bangalore.

*An Alarming Name.*—One of the collegiate high schools in the State contains a terribly-sounding institution. It is called "The Good Boys' Club." One can imagine the self-distrustful youth shrinking from the temerity of membership ; and the robuster sort combining to form a rival association—a confessed "Bad Boys' Club"—whose motto shall be "sound mind in sound body," whose emblem a boy rampant, and whose aim death to self-consciousness and self-complacency.—The name—"The Good Boys' Club"—makes startlingly clear a sad and common view of things. The society, as it happens, is a thoroughly sound and healthy one : fortunately it does discredit to its name. But the name is an injury: might it not be changed ?

*A "Physical Culture Magazine."*—A very interesting venture has been made by Mr. M. V. Krishna Rao of Bangalore, in the publication of a "Physical Culture Magazine." If the Magazine maintains the

standard of the first issue, lately published, its usefulness will be very great. Mr. Krishna Rao has no desire to promote exaggerated development but rather to help his readers towards that general development which means health and strength, to show them simple methods by which common ailments can be overcome, and to foster their interest in physical culture by articles on various systems and prominent exponents. This most attractive and sensible magazine is issued monthly, and may be ordered from Mr. M. V. Krishna Rao, Basavangudi, Bangalore.

*Women and the Indian Educational Service.*—The Secretary of State for India has come to conclusions on the question of pay for women in the Indian Educational Service. In addition recruits of non-Indian domicile will be given an overseas allowance of Rs. 50 per cent per mensem. Owing to the paucity of qualified Indian women no proportion has been fixed as to the number of Indians to be appointed, but encouragement will be given for the appointment of Indian women to all posts for which they are fit. Decisions in respect of leave, pension, recruitment, and training are shortly to be announced.

*Oxford and Cambridge Degrees for Women.*—The unanimous decision of the Oxford Convocation is that from this Michaelmas term women may be matriculated and admitted to degrees in the University. A second decision, *not* unanimous, allows them to serve on delegacies, boards or committees and to act as University examiners. Cambridge seems to desire that the education of men and women should be largely independent. The Syndicate appointed to consider the question has issued two Reports, the one recommending admission of women to full membership, but disallowing their right to enter men's Colleges, the other desiring 'some other solution'—apparently the signatories of this latter fear that women would eventually dominate in university control, owing to numbers one presumes, and that as a result University scholarship would deteriorate.

Cambridge seems to have fallen away from the generous attitude that once made her a pioneer in the higher education of women, and to have forgotten the women who were adjudged to first rank (though they were unable to receive the Hall mark of a degree) in past Cambridge examinations.

*University Women's Conference.*—This Conference of the International Federation of university women was to be held in London during the month of July. Representatives were to be there from the United States, Canada, Australia, South Africa and India. The object apparently, like that of so many conferences of the present day, was to promote the cause of peace by mutual understanding between countries.

*An Army Educational Corps* has been established in the British army, which will supersede the body of Army School Masters and Army School Inspectors (who will be transferred to the New Corps and made eligible for promotion within the Corps), and will extend the scope of education in the army. The vacancies that will occur after the transfer will be filled by officers with permanent commissions and N. C. O.'s., by temporary officers and N. C. O.'s., now engaged in army educational training, by demobilized officers and N. C. O.'s., who were so engaged before demobilization, and by University graduates or specially qualified men. The teachers will hold army rank according to their various grades.

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*Employers and Education.*—A society has just been established in England for the advancement of Education in Industry and Commerce. The Society is made up of employers and their educational assistants and advisers, and the first aim of the Society, according to its published circular, is to encourage *definite* educational work in industrial and commercial undertakings. Labour, apparently, is inclined to regard the attempt as a covert plan for promoting the interests of capital, and wants to know whether the education to be encouraged is to be merely industrial and commercial, or generally cultural and for the simple benefit of the workers. One would have thought that either was of sufficient value to the workers to deserve encouragement but it is the habit of Labour to suspect Capital of interested motives in any philanthropic undertaking, and to refuse to believe that the interests of Capital and Labour may most fitly run together. There is no dog in the manger like your uneducated workman—the only correction for his eternal wrong-headedness is his education. That seems the aim of the new society.

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*International Education.*—The Institute of International Education has recently been founded in New York with the object of supplying information to enquirers concerning organisations and administrations

of schools and colleges, scholarships and fellowships and the possibilities of placing foreign students. It will co-operate with the American University Union in Europe whose branches are at Paris, London and Rome, and it will associate itself with agencies in the fields of science, art, finance, labour or journalism for the dissemination of correct information among foreign peoples. Co-operation may take the form of conferences on the various aspects of international relations that have a general educational significance.

*A Conference* was to take place in July in London between the Professors of English in British and American universities—women's colleges also sending representatives. After the business of the Conference visits were to be paid to Windsor, Eton, Oxford, Cambridge, Stratford-on-Avon and Manchester.

*The College de France.*—An interesting note on the College de France in Paris appears in *the Collegian*. “It comprises fifty-five chairs and maintains fourteen laboratories and experiment stations. It has for its object the promotion of scholarship and science by investigation, experiment, and learned and scientific missions, and the dissemination of the results of research by lectures and publications. The lectures are open to the public *without any charge or formality*. Admission to the laboratories and experiment stations is granted by professors to persons giving satisfactory evidence of their qualification. The College confers no degrees and grants no diplomas, but the individual professors are authorised to deliver certificates. The teaching is not restricted by any programme. The professors expound their own conceptions and the results of their own researches. Subjects taught are as varied as those in the highest French Universities—from general and medical physics to the languages, history and archaeology of Central Asia.” Thus the College de France is an admirable research institute—a “Solomon's House” which no doubt has played, and will play, a very considerable part in the advancement of learning. It is not a university, in that it grants no degrees, and has no programme of studies, no such systematised course in duly combined subjects as is essential to the university idea. Thus those who seek precedents for the abolition of fees in Indian universities will certainly not find one here.

*Manual Training.*—At the annual conference of the English National Association of Manual Training Teachers, held in Manchester, the President of the Society stated that manual training was firmly established in *nearly every school* in the country and that its sound educational advantages had so proved themselves that there was hardly a voice against it in the educational world. Handicrafts and practical subjects were in the hands of efficient and well-trained teachers with sound educational ideals. Practical training was in no sense vocational training, but was intended to add culture of the hand to culture of the mind so that one might help the other and so that, in his early days, a man might learn wherein lay his greatest usefulness.

*Chinese Students Abroad.*—According to the Chinese Minister at the meeting of the Royal Asiatic Society, numbers of Chinese students are sent abroad every year for University training. Of these the large majority go to Japan, but America receives hundreds, while England gets comparatively few. The number supported by Government grants is about two-thirds of the whole.

Of the Chinese graduates educated abroad many enter the teaching profession, while only 10 per cent enter Government service.

It is the aim of the Chinese leaders of thought to send still greater numbers of young men abroad, not only for University training, but for training in all skilled vocations.

It is a pity that, owing to the congestion at English schools and colleges, and partly perhaps to a certain apathy in the matter on the part of English educationists, more men are not sent to England. However, testimony shows that the medical training received in England is more successful than that received in other countries.

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# THE MYSORE UNIVERSITY MAGAZINE.

SEPTEMBER 1920.

## EDITORIAL.

UNIVERSITY EXAMINATION RESULTS.—We have before us an interesting and complicated statement of results in the various degree examinations of this University for this year. There is nothing very startling about them, but they suggest certain comments.

In this University we have a Moderating Board which scrutinises the results of *all* university examinations. It is very chary of interfering with the marks-lists as received from the Chairmen of Examiners, but has proved extremely valuable in securing unity of standard when individual examiners in the same subject obviously differ.

The results of the Entrance Examination were greatly improved this year, this being due to a marked advance in English. In consequence, the First Year Class in the Maharaja's College numbers over two hundred, while the accommodation in the Central College proved inadequate for the multitude of "eligibles." The English of the candidates was certainly much better than last year: evidently the teaching in the Entrance classes had considerably improved, and the lecturers had taken the greatest pains with their students. Too great stress, however, must not be laid on these results. The text-books, as it happened, proved much too easy, and the examination failed as a genuine test of capacity. But indeed, as was pointed out in the last issue of this Magazine, no satisfactory test of capacity for university studies can be applied at the Entrance stage (still less at the S.S.L.C. stage, as in Madras). The University courses might with advantage begin a year later, as the Calcutta Commission recommend.

The B.A. Degree Examination lists indicate that the greatest difficulty lay in languages, in mathematics and in science. In Part I (languages) the percentage of passes was so low as 43·5, while in the

mathematics and science combinations the percentage was actually 28·3. There is an astounding contrast between this figure and the number of passes—well on towards 70 per cent—recorded in the history and philosophy combinations. Every year there is this difference, though this year it is more marked than usual. An interesting result is the effect upon what has sadly enough been called “the graduates’ market.” It is found that the science graduate is able to command as starting salary something like twenty rupees a month more than his historical brother. Yet the one is as good as the other: it is a question of supply and demand, the comparatively small accommodation for science teaching combining with the percentage of failures to render the science graduate a comparative rarity. As regards languages we have no data as to how many failures were in English and how many in Second Language, though we know that both results were disappointing. The unsatisfactoriness of lumping together English and Vernacular results in adjudging passes, and in classifying those who pass, cannot be urged too often. It tends towards leniency in some cases and towards hardship in others, and in either case is unjust, as was realised by the Senate when, at its March meeting, it unanimously passed a resolution in favour of tripartitioning the degree. The greatest evil is the denial of a first class in English, or in Vernacular, to a man whose marks in the other subject are not up to the first class standard.

This is the first year of the B.Com. degree examination, and the results were thoroughly satisfactory, 60·6 per cent of the candidates (of whom there were 33) securing passes.—We are sorry to hear that so far the Commerce graduates have found comparative difficulty in securing employment, and that this is tending to deter others from entering upon the Commerce course. Perhaps the reason for this difficulty is that the Commerce course includes much less English than the Arts course, and employers fail to realise its compensations. It is quite adequate as regards English, for any career connected with business it gives an admirable preparation, and it provides also an excellent mental discipline. It is not “easier” than the Arts course. The classes have been very small, and the men most carefully tutored, and it is very hard lines that the percentage of success among them should be used as an argument against the sufficiency of the demands made by their course. We write with knowledge of the candidates—a sound and capable set of men, who chose this course not with any idea of seeking a “soft option,” but with the desire to find another way of life than the “professions” and the services, and with a genuine enthusiasm for industrial and commercial expansion in the State. As we have before pointed out, it is the curse

of every Indian university that its Arts classes contain so many people who should have chosen a more practical training. Our Commerce men, some of whom would have distinguished themselves in the Arts course, have taken just the sort of step that was desirable for half of those who are now Arts men. The Arts men stick to Arts because this alone appears to lead to adequate careers, but the Commerce men have ventured upon another preparation.—It is of the highest importance that openings should be found for them here instead of letting them drift away to other parts of India, there to prove the value of their special equipment.

The M.A. Degree examinations also were held this year for the first time. The record is quite satisfactory for a beginning, and in the circumstances. Twelve candidates passed out of 15,—though the majority were placed in the third class, four second classes and no first class being obtained. As in the other examinations, the application of the Madras standard was secured by the co-operation of Madras examiners. This examination has to serve, at present, the functions both of an honour and of a pass examination, and the students vary between those of the very highest ability and those who, without being much above the average, can nevertheless profit by an extension of their studies. The rule that every candidate must attend a full course in the Maharaja's College is still in force, the vexed question whether "private study" shall be accepted (whether from candidates in general or only from those engaged in the teaching profession) not having yet been settled. Two things militate very strongly against obtaining the best results from the M.A. courses. One is that almost every really able student seeks to appear for the biennial examination held for the selection of recruits to the Mysore Civil Service. This means that for many months these men *do no class-work at all*, being engaged solely in preparation for the Civil Service Examination. During these months they simply attend the classes. The M.A. courses are exacting, and are definitely planned in relation to two years' continuous work. Obviously such candidates obtain a degree inferior to their abilities. Unfortunately there is no way out of this difficulty, except that of depriving the M.A. courses of their best men. Another most serious disadvantage arises from the financial circumstances of the candidates. The great majority of them simply cannot afford to spend two unemployed years after taking the B.A. degree, and they obtain employment while at the same time attending the M.A. classes and struggling with the M.A. work. *Almost every student of the first year M.A. class 1920-21 has some outside employment.* He secures from his employer some arrangement which enables him to rush to his classes and rush back again. The resulting

life, and the nature of the work done, may be imagined. Here too a solution is very hard to find. The men cannot help it, nor can we refuse them the opportunity, which they earnestly desire, for such study as is possible in these circumstances.

**DIRECT RELIGIOUS AND MORAL INSTRUCTION.**—The Section on this subject in the recent *Memorandum on Education in Mysore* revealed Government's keen desire for the introduction of a really effective system, its keen realisation of the difficulties in the way, and its recognition of the fact that in this matter ethical instruction needs the reinforcement of religious teaching. We believe that Mr. Wadia has made considerable progress with the text-books which he is preparing. We look forward to the appearance of these with the greatest interest. Mr. Wadia's insistence, in the article appearing in this issue, on the guiding and energising power of philosophy with regard to conduct arouses hopes of such a presentation of ideals and sanctions as will really help to quicken right conduct; and we are certain that Mr. Wadia's books will be not merely a guide to the schoolboy but an inspiration to all of us.

We should like to suggest one or two important facts bearing upon this problem.—Ethical teaching divorced from religion is not futile. It makes more difficult that self-deception which is almost invariably invoked before a wrong act is done. This is the core of truth in the Socratic idea that conduct is a matter of knowledge: men do not deliberately do what they admit to themselves is wrong. They delude themselves before acting, and the inculcation of clear ethical doctrine may go far to deprive them of this refuge. Further, the presentation of a noble idea is in itself an impetus, and men have gathered moral strength from the mere contemplation of the ideas of truth, of justice and of brotherliness. For very few, however, is such an impulse adequate. To the generality of men moral teaching is ineffective if its appeal is not made in terms of religion. Now, the inspiration of an idea is not a religious inspiration. Religion exists only when a definite spiritual relationship between God and man is conceived. It implies God's care for individual men, His accessibility to them through prayer, His readiness to help and guide in all things, and in particular to give that moral strength and endurance without which correctness of ethical perception is futile. Without such divine support the ordinary man cannot continue to do right when the opposition or suffering involved passes a certain limit. With it, as has been found by innumerable devotees of all the great religions, even a character naturally weak is enabled

to endure to the end. It is customary now-a-days to speak of philosophy, science, patriotism, and so on as religions. They may produce a somewhat analogous, if less enduring fervour, and they may form with religion an invincible alliance, but they are not religious in their essence at all. If you negate the relationship of the divine being with the human being, you have no religion ; and this direct relationship with God and the personal worship and service which it implies are the heart of all the religions that have spread and maintained power in the world. Few of us, probably, would agree with Newman's main contention in his essay on "Knowledge its own End." But he insists most convincingly upon the inadequacy of any sort of non-religious study as a substitute for religion in matters of conduct.—"Quarry the granite rock with razors, or moor the vessel with a thread of silk ; then may you hope with such keen and delicate instruments as human knowledge and human reason to contend against those giants, the passion and the pride of man."

Broadly speaking then, moral without religious instruction is not worth while. But in our State there are several religions—many, if important subdivisions be taken into account. We believe in Mr. Shama Rao's solution, difficult though its application be. "In Mr. Shama Rao's opinion," says the *Memorandum*, "the only solution of the difficulty was to interest each religious community concerned so that they may appoint their own teachers and arrange for religious teaching."

Further, the function of deliberate school instruction in such matters is often quite wrongly conceived. Some time ago we read an account of a certain district conference in which such instruction was urged strongly—on the ground that the influence of parents was declining now-a-days, and *something* must be done to train the young in the right way! Here is a dangerous doctrine if ever there was one. As to the "declining influence" of Indian parents we do not know what to believe. An eloquent speaker at the October session of the Senate urged, as a reason for introducing the compartmental system into the Entrance Examination, the fact that the parents of to-day had much *more* influence over their children than had those of a past generation. But in any case it would be better to rule out moral instruction in schools for ever than to let parents imagine that this is to be a substitute for what they alone can do. Develop school teaching to its highest power, and it will never be comparable to the influence of the home. If a father neglects the training of his boy, there is equally little hope for the boy and for the father. If true guidance is not found at home, it is extremely unlikely

to be accepted anywhere. Nor is this training mainly a matter of precept. It is a matter of daily influence and example. No social changes, and no possible variance of opinion between the father and the son as the latter grows up and comes under other influences, will ever deprive the home of its lasting power upon character.—There are other influences too that will always count for far more than the most perfect system of moral training. There are no limits to a boy's responsiveness to the world around him. He knows as well as anyone what is going on, and what are the standards of private and of public life in his environment. If that life is distorted and faithless to the ideals preached in his school books, he will adjust himself to the former and not to the latter. If he sees around him place-hunting, extortion, the reckless disregard by individuals of the public good, the substitution of private ends for public duty, he is hopelessly handicapped morally. If on the other hand he sees uprightness around him, and honour and the spirit of service dominate the lives of the men he knows, it will cost him little effort to do right, and wrong-doing will be a torment to him. What we, his seniors, have to do is to look to ourselves, and see that our example is altogether upright and honourable. That will mean much more to him than innumerable words.

Indirect influence, in fact, is what counts for most in these matters. Many such influences may be employed in school and in college. Mr. Reddy, in urging this view at Salem recently, referred particularly to the Boy Scout movement as exerting a strong and healthy moral influence upon the schoolboy. The reference was well justified. The Scout movement in this State flourishes exceedingly. It is well organised and widely popular, and it boasts one of the most stimulating of magazines. Scouting rouses a boy's generosity and his pride in all that is good; and there is no sermonising in it. Games perform the same function. They promote the physical health that tends towards moral health; and they train the mind also in ways of energy, reliability, co-operation and self-sacrifice. All the activities connected with school societies are similarly useful if wisely guided.

Finally, any sort of direct ethical teaching, while good and desirable, contains the dangers of self-consciousness and morbidness. It is not good to have much of it, and it has to be so wisely given that the very best and most finely-tempered men are required for the teaching. The average teacher will make nothing of it: it is not a matter of scholarship but of rare wisdom and sympathy.—Thus in our endeavours in this direction we must constantly lay stress, and expend labour, upon the indirect and healthily unconscious methods of character-building.

"SIMPLIFIED SPELLING."—Of this queer craze one has heard little during recent years, when people have had serious things to think of. There are even more serious things to think of now; but the "reformers" are again upon the warpath. We have been reading an article, printed in the *Hindustan Review*, by Professor Walter Rippmann, the Hon. Treasurer of the Simplified Spelling Society, and also some excellent quarrelling between "reformers" themselves in the pages of a new journal, *To-morrow*. Professor Rippmann's article, which is entitled *Clear Speech and Clean Spelling*, is quite sensible in its arguments: the trouble is that the much more potent arguments *against* are ignored or very feebly answered. He points out that the present "irrational" system of spelling makes it most difficult to teach accurate pronunciation; that it renders writing (which is primarily a substitute for speech in the communication of thought) a very bad instrument, and one most difficult to master; and that it vitiates the written language even as an object of *study*, because it indicates disused pronunciations and sometimes suggests false derivations. He thinks our cleaving to this spelling is due to habit, and that the next generation, duly trained, would not feel the wrench from the old method, having never known it. Uniform spelling, he urges, would save time, which might be spent in securing greater individual and national efficiency. It would simplify, and popularise, the learning of English within the Empire and beyond; and "nothing but the spelling prevents English from becoming the recognised language of intercourse between nations."<sup>\*</sup>

Such are the excuses for turning our language into an implement; for making words counters instead of symbols; for emptying both our writing and our speech of the rich and subtle delight of recollection and allusion. There are few words in the language which have not an aroma that clings to their spelling and would be lost did that become "sensible." And indeed sound is far from being a word's most characteristic feature. A word is not merely, or chiefly, a noise to indicate something. That is what words were to the savage, but with even the earliest writing there came to language a new dimension, and soon a word's suggestion, by means of the sight of it, became a most important

\* Compare the remarks of Professor Brander Matthews.—"The English language is now spoken by more than twice as many people as have any other European language for their native speech. It bids fair to become the world language of the future. For this function it is admirably fitted by its grammatical simplicity and by its flexible vocabulary. The chief obstacle in the way of its extension is the barbarous complexity of its spelling." ("Grammatical simplicity," says Professor Matthews, and his own first sentence is hopelessly ambiguous!)

element in the appeal of one mind to another. Literature depends absolutely upon this suggestiveness. A poem cannot be composed in word-counters. Did any one ever write a good poem in Esperanto? No—because its terms have breadth without depth, their function is mere indication, and, having themselves no history, no growth, they reveal merely a blank, unrelated, uninterpreted present. Such terms are unfit for imagination's use—they cannot convey any profounder sort of meaning. It is just so with spelling. We challenge anyone to produce a piece of even tolerable literature with an artificial system of phonetic spelling. He can make a catalogue in this way, or tell a matter-of-fact story; but he can produce none of the finer effects of literature, for the life will have gone out of his materials. Similarly, translate any piece of fine prose or verse into "modernised spelling," and see how much of its flavour is left. Even when fine literature is read aloud, a very large part of the hearer's pleasure is related to the words as he visualises them, clothed in their historic garb.

We like G. K. Chesterton's protest, in *All Things Considered*.—"It seems to me that what is really wrong with all modern and highly civilised language is that it does so largely consist of dead words. Half our speech consists of similes that remind us of no similarity; of pictorial phrases that call up no picture; of historical allusions the origin of which we have forgotten. . . . Now my own fear touching anything in the way of phonetic spelling is that it would simply increase this tendency to use words as counters and not as coins. The original life in a word . . . burns low as it is: sensible spelling might extinguish it altogether." And readers will remember Archbishop Trench's words, in the preface to a famous book devoted to word-atmosphere.—"For many a young man his first discovery that words are living powers has been like the dropping of scales from his eyes, like the acquiring of another sense, or the introduction into a new world."—It is a curious indication of weakness in Professor Rippmann's case that he discounts the most vital element in language simply because in a few cases spelling suggests a false derivation. Better, he apparently thinks, have no suggestion at all than an occasional false suggestion.

This, then, is the great objection to the principle of "spelling reform." There are practical difficulties also, of an obviously decisive kind. One will suffice here. If the next generation, or any generation, are to be trained to the habitual use of the new spelling, what is to become of the world's literature so far as it exists in, or has been translated into, the English language? Is it all to be rendered into

phonetic script? Sacrilege of this kind is, fortunately, impracticable. How then can the readers of that great new day approach our literature? The "reform" scheme lays it down that in their education time is not to be wasted in teaching them the old spelling; and anything so "irrational" cannot possibly be understood without training. Thus the simplest example of "pre-reform" literature will be to the phonetically-minded "efficient" a bewildering and even agonising study. Our old hieroglyphics will suggest to him merely an appalling process of tongue-twisting, and few words will be recognisable to him. The proposed "reforms" would succeed in removing current literature at one stroke considerably further from the average reader than Chaucer is removed from the average reader of to-day.

But we need not fear. Our reformers are already at loggerheads with each other, and no doubt they will continue thus to expend their dangerous energies. The greatest exponent of "reform" is the Simplified Spelling Society, to which another great exponent, Sir Harry Johnston, who has promulgated a rival system, refers in notable terms, within the hospitable columns of *To-morrow*.—"I sometimes think the Simplified Spelling Society's system was invented by Miss Daisy Ashford at the age of nine, when she had finished writing down 'The Young Visiter.' Some say, however, it was an invention of Lewis Carroll's; others that it is a degenerate descendant of Artemus Ward's attempt to throw ridicule on our inconsistent orthography. I can hardly believe it was seriously put forward for adoption by educated people, too busy to protract a bad joke."—Sir Harry touches off the Society very nicely,—and his phrase "a bad joke" will stick, let us hope, not merely to its doings but to the whole of that movement which he share.

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**GAMES IN THE HIGH SCHOOLS.**—Professor M. G. Srinivasa Rao's report (in our last issue) upon collegiate athletic activities laid stress upon the poverty of the athletic and sporting powers of the boys who proceed from high school to college. We earnestly support his plea that the Mysore and Bangalore colleges may make it their business to foster cricket, football and tennis in the mofussil by regular tours, systematically planned. This kind of encouragement is needed everywhere. An endeavour has recently been made in England to get the Oxford and Cambridge *colleges* to send teams to a number of the leading schools, to maintain enthusiasm there and to raise the standard of play. The idea was objected to in some quarters on the ground that even a college team from one of the big 'varsities would be so much

stronger than the ordinary school team as to impose an unhealthy and discouraging effort upon the latter. The objection was, of course, very easily met by selecting elevens of suitable strength—an excellent thing for the border-line men in the colleges themselves.—If such a thing is desirable in England, how clear is the necessity in Mysore, where—in spite of any amount of capacity, and latent enthusiasm, in the schoolboys—games and field-sports are simply languishing in the schools. It would be difficult to find a better use for money than expenditure upon the touring of college elevens: it does so many kinds of good to the college men as well as to the schoolboys. It creates something of a bond between the schools and the University—an association that is profoundly desirable in the interests of the State as well as of themselves. It fosters the keenness of the inhabitants of mofussil places, the monotony of whose lives needs such interruptions, and it brings some hint of the University's life to those whose complete separateness from it proves in various ways unfortunate.

Mr. Srinivasa Rao speaks of the failure to use the money *actually paid by high school students by way of sports fees*.—It is difficult to speak moderately of such flagrant neglect. Even worse things sometimes happen. We recently came across an instance in which the sports-fees of a certain non-Government high school in the State were expended, in great part, upon *school furniture*, and other things having no connection whatever with games.—No wonder that among the 200 students admitted this year from Entrance classes to the Maharaja's College *hardly any* can properly play any game at all. It is a hopeless state of affairs when a man who has the makings of a good footballer or cricketer has no chance till he reaches perhaps his nineteenth year. Much is said about poor and deteriorating physique in India. Such a thing always implies culpability somewhere. In this case not the least conspicuous among the culpable are those who deny the schoolboy his games—or who make no effort to draw him to them if he requires drawing.

We are afraid that this is largely an indictment of the high school teachers. Undoubtedly, as a body, they are to blame. Occasionally a high school contains a real enthusiast. He is welcomed by the boys, who idolise him, and are more influenced by him than by all the other masters put together; and he is welcomed by the masters, who joyfully relegate to him all this work, and shun the very neighbourhood of the playing-fields. It is a great shame, and a master who cannot play might at least encourage. But, as we have urged before, athletic enthusiasm might be taken into account, as in England, in making

appointments to such schools. A master who has no interest in the boys' games, and in their physical fitness, is so much the less qualified for his work.

STUDENTS AND FICTION.—The Maharaja's College Library, remarkably rich in most departments of literature and scholarship, is very poor in fiction. This is being remedied by the addition of a considerable number of the best and most representative novels of this and recent times. Not, however, without grim misgivings on the part of the learned, who fear waste of time and neglect of the prime business of life—namely the accumulation of knowledge and the passing of examinations. Peace to these misgivings. It is necessary to presume a certain common-sense in the average student; and it is never right to refuse a benefit because it may be abused. Fiction is, and long has been, the most notable form of English literary art, and the novelist is the most important interpreter of the life, and the thought, of his time. No class-room knowledge is comparable to the wisdom, the alertness, the responsiveness that come of the study of life even through the books that mirror it. Many an effort is being made to win the student both to wider views and to more individual activities than the lecture-room suggests. He is to play, to talk, and, while giving book-lore its due, to reserve his devotion for *literature*; and a good novel braces and enlivens him like a run in the early morning air. It pertains to his life and all that is in him. It appeals to his own feeling, his own judgment, and even his own will, while his class-room studies—the bulk of them—leave untouched the self which we seek to develop. He accepts, stores, evilly transmutes, and returns, that which authority gives him. This is apt to be the class-room way even where literature is concerned.—He is not *learned*. Not even that do we achieve. But he usually suffers at present the disabilities of learnedness. “He is the most learned man,” says Hazlitt, “who knows the most of what is farthest removed from common life and actual observation, that is of the least practical utility, and least liable to be brought to the test of experience, and that, having been handed down through the greatest number of intermediate stages, is the most full of uncertainty, difficulties, and contradictions. It is seeing with the eyes of others, hearing with their ears, and pinning our faith on their understanding.” We need not be so cynical, and of course one recognises the great value of the curricula. But to say that they need no supplementing, to say even that the student errs if he diverts some of the energy now devoted to them to matters more nearly related

to life and personality, is narrowness and absurdity.—To anyone who would debar the student from fiction we would commend Thackeray's "allegory," as he calls it.—

"I was once present when a young gentleman at table put a tart away from him, and said to his neighbour, the Younger Son, (with rather a fatuous air), 'I never eat sweets.'

'Not eat sweets! and do you know why?' says T.

'Because I am past that kind of thing,' says the young gentleman.

'Because you are a glutton and a sot!' cries the Elder (and Juvenis winces a little). 'All people who have natural, healthy appetites love sweets; all children, all women, all Eastern people, whose tastes are not corrupted by gluttony and strong drink.' And a plate of raspberries and cream disappeared before the philosopher.

"You take the allegory? Novels are sweets. All people with healthy literary appetites love them."

## FROM HUME TO GREEN.

### II. BENTHAM AND HIS WORK.

THE "Utility" upon which Hume had based his moral and political system became in the hands of Bentham a trenchant weapon of legal and political reform. In the latter part of the 18th century it had become the fashion for statesmen and writers of repute to extol the English constitution as the perfection of human reason. Blackstone found it difficult to speak with measured praise "of a constitution so wisely contrived, so strongly raised, and so highly finished." When in 1785 Pitt brought forward a bill for the reform of Parliament, he was opposed by Lord North who expressed his conviction that the constitution "was the work of infinite wisdom. . . . . . . the most beautiful fabric that had ever existed since the beginning of time." All this praise, so lavishly bestowed on the constitution was hopelessly misplaced. As a matter of fact there was a striking want of harmony between the social needs of the country and its institutions.

The Industrial Revolution was rapidly transforming England from an agricultural into a manufacturing country. The House of Commons, however, far from being the "express image of the feelings of the nation" which it was meant to be, was dominated by the landed interest. The Parliamentary system of representation was full of anomalies. It was estimated in 1793 that out of a total population of 10 millions, 15,000 electors returned a majority of the whole House of Commons. But even this was nominal, for 172 members were returned on the nomination of the Treasury or of individuals, and 130 owed their return to illegitimate influence. Again while rich and flourishing towns like Birmingham and Manchester had no representatives, Old Sarum, which was uninhabited, returned two members. In one place a solitary voter took the chair, "called the roll of freeholders, answered to his own name, and elected himself. He then moved and seconded his nomination, put the question to the vote, and was unanimously returned." The boroughs were the monopoly of the governing classes, some of whom sold their seats to the highest bidder, while others sold them to members of their own family at fixed prices. It was stated in a petition presented to the House of Commons in 1817 that parliamentary seats were bought and sold like tickets in the opera.

There was keen and wide-spread distress in the land to which various causes contributed e.g. the enclosures of the commons, a series of failing harvests and the unwise administration of the poor laws. In face of this distress, the land owners used their influence in the House of Commons for imposing protective legislation prohibiting the importation of all foreign corn when the price was below 80s. a quarter and all colonial corn was below 67s.

"For what were all these country patriots born ?

"To hunt, and vote, and raise the price of corn ?"\*\*

Real property was not liable for debts. If a country gentleman died in debt his real property passed on to his heirs, and his creditors had no hold over it. When Sir S. Romilly brought forward a bill to amend the law it was rejected by the House of Commons. When a few days later he brought in a new bill for the same purpose but restricted in its operation to tradesmen, who happened to possess real property, it was passed in the House without any difficulty. The country gentlemen had no objection to make tradesmen pay their debts.

Nor were the defects of parliament compensated by the activity of the local authorities, for the municipal corporations were both corrupt and inefficient.

The state of the English Law, again, was, alike in theory and practice, in a chaotic condition. "History," says Mill in his famous essay on Bentham, "will one day refuse to give credit to the intensity of the superstition which, till very lately, passed off the charming representations of Blackstone for a just estimate of the English Law, and proclaimed the shame of human reason to be the perfection of it." Every branch of the law teemed with absurd fictions and antiquated survivals. A man's right to sue in London for an assault committed at Minorca was justified by the fiction that the assault had taken place at Minorca, (to wit) at London. Benefit of clergy gave protection to criminals who happened to be in orders. Peers could claim exemption from punishment even in cases of manslaughter on the ground of privilege. "Irrational restrictions were placed by the common law upon the admissibility of evidence. The party to an action or the husband or wife of such party, was not competent to be a witness at the trial, whilst the Court of Chancery admitted the evidence of the persons most likely to know the truth but would receive it only in the form of written answers which give little or no security that witnesses who know the truth should tell it." (Dicey : *Law and Opinion in England*). The dilatoriness and expense of

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\* Byron: *The Age of Bronze*. See S. Walpole's *History of England*, Vol I.

proceedings in the Court of Chancery were such as to call forth strong denunciations from men like Romilly and Erskine. Romilly said that the Court was a disgrace to a civilized nation.

The penal code was at once barbarous and grotesque. It was a capital offence to steal a horse or a sheep, to snatch a man's property from his hands and run away with it, to cut down trees in a garden. It was not a capital offence to attempt the life of one's father or to commit perjury even when the result of it led to the execution of an innocent man. The executions, though they bore small proportion to the convictions, were still scandalously numerous. Except in case of treason, a prisoner on trial for capital offences was not allowed the benefit of counsel and the reasons urged for this are remarkable. It was said that the absence of an advocate turned the judge into counsel for the prisoners. As Dicey cuttingly remarks, the plea was notoriously untrue; and if true it would have implied that injustice to a prisoner could be remedied by neglect of duty on the part of a judge. The penal laws against Roman Catholics were outrageously oppressive. Any proposal, however, to reform the Criminal Law encountered strenuous opposition from parliament and judges. When it was proposed to substitute for the death penalty transportation for life as the punishment for the offence of stealing 5s. in a private shop, "the twelve judges stepped down from their pedestals, and through Lord Ellenborough the Chief Justice of England favoured the House of Lords, for the first time, with an unasked opinion, not of law, but of legislation, protesting against any abridgement of their powers of life and death."

(S. Walpole: *History of England*).

These practical abuses found a relentless foe and an unsparing critic in Bentham. The motto of a good citizen, he says, is to obey punctually and to censure freely. He faithfully followed this precept in life. No institution was sacred to him merely on the ground that it was ancient. The question was whether it was discharging a useful function in the present. He makes short work of the "wisdom of our ancestors" which he calls "the infantile foolishness of the cradle of our race." Nor does he conceal his contempt for the revolutionary dogma of natural rights. "Natural rights" he says "is simple nonsense, natural and imprescriptible rights rhetorical nonsense—nonsense upon stilts." Above all, as befitting a reformer, Bentham had a burning passion for the public good and the practical evils that he saw around him stirred in him a lively sense of indignation. He carried on an unceasing warfare against them, and succeeded in impressing the truth on his countrymen that the institutions which they fondly believed to represent the

"wisdom of our ancestors" were in fact the outcome of class-monopoly, class-privilege and a perverse dread of change. Bentham, however, did not stop with negative criticism. His work was in the highest degree constructive and criticism was a means to that end. He drew up for the guidance of reformers an ideal and a comprehensive programme of legislation which initiated a series of far-reaching and beneficent reforms. In the words of a recent writer (W. Graham), Bentham 'sketched out and filled in the outlines of each specific reform in law: reform in the criminal code, with a theory of punishment more rational, more in accord with our moral sentiments, more humane, and more effective; reform in the judicial establishments, in procedure, in the administration of the Equity Court, so as to diminish delay, vexation and expense; as the result of all of which he has been a greater benefactor of the English people than any other philosopher or even than most statesmen.' "I do not know," says Sir Henry Maine, "a single law reform effected since Bentham's day which cannot be traced to his influence."

"Nature," says Bentham, "has placed man under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right or wrong, on the other hand the chain of causes and effects are fastened to their throne. They govern us in all we say, in all we think: every effort we make to throw off our subjection will serve but to demonstrate and confirm it ..... *The principle of utility* recognizes this subjection and assumes it for the foundation of that system, the object of which is to rear the fabric of felicity by the hands of reason and of law ..... By the principle of utility is meant that principle which approves or disapproves of every action whatsoever according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question ..... I say of every action whatsoever; and therefore not only of every action of a private individual but of every measure of Government."

This principle of utility or general happiness is the fundamental article in the political creed of Bentham. It is at once a test for the criticism of existing institutions and a basis for further reconstruction. However open to criticism the principle of happiness may be either as a standard or a source of morality, no other principle has been of such ready applicability in law and politics. No one will deny that the function of the state is to produce conditions favourable to the happiness of its subjects e.g. protection from force or fraud. Further, Bentham

is not content with putting forward general happiness in a vague sense as the ideal of legislation. He specifies four concrete ends in the light of which general happiness has to be interpreted. These are subsistence, abundance (accumulation is the better word), security of person and property, which includes civil and political liberty ; and equality of possession. The first two need no comment. Without subsistence a man will have to starve. Again no one can be said to be happy who is forced to live on the fringe of famine, or at any rate to lead a precarious existence. As to subsistence, the function of government is to secure to the labourer the fruits of his labour. The same principle holds good in regard to abundance, which is promoted by thrift. In fact in the economic sphere of production, the state can do nothing but protect the labourer, that is, guarantee to him the products of his labour. In the opinion of Bentham, security of person and property and the sense of security are absolutely essential to happiness and the enforcement of this security constitutes the primary function of Government. It is the distinctive index of civilization and it is entirely the work of law. "Without law there is no security; and consequently no abundance, and not even a certainty of subsistence." The equal division of wealth, again, in Bentham's opinion, promotes general happiness and his reasoning is based on the well-known principle that increase in wealth is not followed by a proportionate increase of happiness. If the law, therefore, took from the richer a part of their superfluous wealth and bestowed it on the poorer classes the sum total of happiness would be increased. Bentham, however, is emphatically of the opinion that security is a better end for a legislator to aim at and that any attempt to interfere with the existing system of the distribution of wealth in a country would be disastrous. "When security and equality are in conflict it will not do to hesitate a moment. Equality must yield. The first is the foundation of life, subsistence, abundance, happiness, every thing depends upon it. Equality produces only a certain portion of good. Besides whatever we may do, it will never be perfect; it may exist a day but the revolutions of the morrow will overturn it. The establishment of a perfect equality is a chimera ; all we can do is to diminish inequality."

There is only one means of reconciling security with equality. The state can limit testamentary power to prevent the too great accumulation of wealth in the hands of an individual. So much for the ideal of legislation.

Bentham's theory of government is very simple and may be stated in a very few words. It is based on the assumption that man is

selfish by nature. Of course, it would be supremely absurd to charge with selfishness a man like Bentham, who was in every way an example of disinterested devotion to the public good. We are, however, here speaking of the doctrine and not of the man. Bentham was convinced that man is essentially selfish. So it is written in his constitutional code. "Whatsoever evil it is possible for man to do for the advancement of his own private and personal interest at the expense of public interest—that evil sooner or later he will do, unless by some means or other, intentional or otherwise, he be prevented from doing it" (Cited in MacCunn's *Six Radical Thinkers*). Thus we have two principles in conflict with one another :—

The right end of government is the promotion of general happiness or in Bentham's phrase the greatest happiness of the greatest number.

Each individual, however, desires his own happiness to the exclusion of the happiness of others.

"Hence the whole problem is to produce a coincidence of the two ends, by securing an identity of interest between governors and governed. To secure that, we have only to identify the two classes, or to put the government in the hands of all." Further all government is evil, but it is a necessary evil. From this follows another corollary—"minimize control and minimize confidence." It is well known that this doctrine, otherwise known as that of *laissez faire*, was in harmony with the general spirit of the age. It is significant that while in the region of politics Bentham was preaching that the less powers the government has the better, in the region of economics, Adam Smith was enunciating the doctrine that the individual while aiming only at his private gain is "led by an invisible hand" to promote the public good.

N. NARASIMHA MOORTY.

(*To be continued.*)

## CONCERNING SAMSARA—AND KINDRED MATTERS.

ONE of the most striking signs of the times in Mysore, and indeed in the whole of South India to-day, is the remarkable movement going on amongst women. Its chief feature is, naturally, a more and more insistent demand for educational advantages. This clamour for education is for the most part not due to a thirst after knowledge for its own sake. It is rather caused by a realisation of the benefits education brings in its train. It is the outcome of economic, social and political forces. The generous scholarships offered by His Highness's Government to girls willing to undergo training as teachers, nurses or doctors, or to take a more advanced educational course, make needy families realise that girls instead of being a source of expense, may contribute considerably to the family purse. The widowed daughter, the burden of whose support was only mitigated by the fact that she was often a convenient household drudge, is now suddenly discovered to be a useful asset to the family income, if only she can rub up and augment the rusty knowledge she once acquired at school. So young widows who have scarcely touched a book since they left school many years ago now come eagerly forward saying they once "read up to Lower Secondary," and offer themselves for further education, that they may eventually be trained as teachers. Others come gratefully to someone who previously with much effort and persuasion dragged them through the Lower Secondary and say how thankful they are for this benefit since a training scholarship of Rs. 15 is now within their reach, and the burdens of a poor old father or mother may be lightened thereby and a youthful family provided for.

There are also social and political influences at work. The non-Brahmin communities waking up from a long sleep of indifference suddenly realise that they too have a soul and that they may be a power in the State, if they can only catch up the Brahmins in the educational race. The enthusiasm of the men infects the women too, and prejudices against the continuance of the girls at school fade magically away. The movement is still in its infancy, but it is growing marvellously in force : each year sees some new advance, some bolder pioneer step taken.

Women feel the excitement of the modern political ferment. There is much glib talk about Home Rule, not infrequently accompanied by

such an abysmal ignorance of history and in particular of constitutional history and the problems of Government, as to make the opinions expressed somewhat laughable. Yet it is a healthy sign that the interest should be there. Wise education should guide it into intelligent channels. The eagerness for English is partly due to the desire of the modern girl to take a more active part in the affairs of the country. English is the medium by which she can make her views intelligible to a larger circle and it is the language which enables her to gather knowledge from many varied sources and brings her in touch with her sisters in other parts of the world. The rather surprising opposition on the part of women to the proposal that girls' education in High School and College should be entirely through the medium of the vernacular, was largely due to the fear that their facility in using and understanding English would thereby be weakened and they would be still less able than at present to enter into the wider life of the times. They argued that since a girl's education was usually of shorter duration than a boy's she needed all the more opportunities of practising a foreign tongue. Married ladies show a remarkable eagerness to attend English classes and attain a proficiency which was impossible during their brief school course.

Now any such rapid movement is bound to have its dangers. The racing mill stream may be most useful in turning machinery : it sometimes also sweeps away life. Those who have any influence in determining the course of the torrent need to be awake to the dangers. There is the fear lest eagerness for educational progress may lead to neglect of health. Every headmistress is familiar with the parent who comes leading a tiny child by the hand and urging that she shall be put in a class far beyond her attainments. The plea is "She is a very bright child, madam, and we want her to make good progress. We have obtained a tutor for her at home. He will take her morning and evening and in a fortnight she will be ready for this class. So please put her in it." And there are the parents who come begging for double promotion for their girl, because in the few weeks of holiday she has "gone through" all the work of the next highest class. How impossible it is to persuade such of the unhealthiness of these poor little forced plants. Too often the heavy eyes and listless demeanour tell their tale of the overtaxed mind and body.

There is the danger, too, lest the intoxication of the new wine of liberty that comes with educational advance should turn the heads of those who drink of it. One is familiar with the illustration of the conservatives—the kite pulling at the restraining string snaps it, flies

joyously skyward, only to fall and soil its purity in the mud. Sadly the progressives have to acknowledge that there are girls and women whose conduct gives point to the illustration. It is the solemn duty of those who guide the education of girls to see to it that the school shall not fail to give them the "wisdom that is from above," which is "first pure, then peaceable, gentle, conciliatory, full of mercy and good fruit, without partiality and without hypocrisy." The Mysore Government have recognised this responsibility in their insistence that religious and moral education shall find a place on the curriculum. It is a pity that so many practical teachers feel that it is impossible to give this in school. Education which is not closely associated either in the school or in the home with a very vital religious and moral training is a dangerous force. Too often both parent and teacher are satisfied if a child is sufficiently crammed with facts to obtain an examination pass. They do not see to it that the education given produces that "Self-reverence, self-knowledge, self-control" which alone "lead life to sovereign power."

One fears lest in our eagerness to hasten forward we should fail to take time to think out carefully our purposes and methods, and to consider the particular needs of India, or the peculiar contribution her women may be able to make to cultural ideals. So far, the tendency has been to progress along western lines, and the curriculum of most girls' schools differs very little from what is found in Europe and America. Each new plan that finds acceptance in the West—the boarding school, girl guides, the Montessori system—is warmly advocated in India. It may be that this is all good and right. In spite of considerable surface differences, there is much that is common to girl nature all over the world. It may be also that this is inevitable. It is the tendency of modern civilisation to produce conformity to type. Differences in national custom and costume tend to disappear before its march. Thereby we lose much of the picturesqueness of life, although there are compensating advantages. This conformity to type in education may possibly be to a large extent desirable. But we need to consider the matter. There is much in the distinctively Indian womanly ideal that is very beautiful and we do not want it lost. It was perhaps partly the fear lest it should be lost which caused that almost amusing terror of suffragettism evinced in many of the answers to the Calcutta Commission Questionnaire: although advanced reformers might possibly attribute it rather to a fear lest masculine dominion should be overthrown. But a true and a wise education of whatever type will never of itself produce suffragettism. It is caused rather by a

failure on the part of the dominant sex to sympathise with legitimate aspirations and to see in the woman a comrade worthy to share in a wider life and responsibility.

It may quite well be that, as suggested by the Calcutta Commission Report, at least two types of girls' schools are necessary for India, to satisfy the aspirations of the most progressive and to conserve those distinctive features of Indian womanhood that are recognised as particularly beautiful. The matter can only be decided by the people of this country. Cultured Indian women must give themselves to its careful consideration. Those who have received an education on Western lines and have studied educational systems in other parts of the world should consult with those whose culture is of the more specifically Indian type. It would be most useful if committees were formed of women who were prepared to put original thought into the solution of the problems of girls' education. The services of all thoughtful women are needed, whether they are professed educationalists or not. They must be on the look-out lest, in the constant compromises forced upon us by the inadequacy, both in efficiency and in numbers, of the present teaching staff among women, we should lose sight of those loftier ideals which animated us at first.

The present struggle to find a type of education that can be hurried through and will fill a girl with as much knowledge as possible before an early marriage is surely mistaken. The only sane plan is to delay the marriage age—not merely to talk about doing so—and see that the girl has a chance of an all-round, intelligent development before she takes upon herself the burden of wifehood and motherhood. A few brave pioneers have done something in that direction and most girls now-a-days respond to such treatment and do not worry their parents to find them husbands so soon. It needs that more of the timid ones come out and follow bravely in the footsteps of the pioneers. Surely with so much talk about the need of the reform, a few pushes would set the ball rolling steadily in favour of deferring the marriageable age.

But there is so much that men could do, apart from this, to improve the educational standard of women. How many men, who are willing to spend a little money on a governess or tutor for their wives, or who will urge them to join classes, or take up some study in the midst of their multifarious household duties, will take the trouble to educate them themselves? Do they ever take pains to explain the events going on in the bigger world outside the narrow circle of their interests? Do they try patiently and continuously to enlarge their horizon, to interest them in the books or papers that they themselves enjoy? As a Hindu girl

once said to me : "If the husband teaches, then the wife will get on well; but otherwise she does not care." It is easy enough to spot the girls in a class whose fathers are cultured and take a living interest in their education. They are far better informed than the others, though they may have no better brains. Their outlook is wider, their approach to their studies more intelligent. But they are so few. It is pleasant, however, to find that a growing number of men are sufficiently keen on women's advance to take personal trouble to educate their wives and daughters.

In conclusion, I cannot do better than commend to the attention of those not already familiar with it, Ruskin's lecture "Of Queens' Gardens" in "Sesame and Lilies." The reading of it is a constant source of inspiration to myself. The lecture was written at a time when the condition of girls' education in England was not unlike what it is to-day in India. It matters not that he writes as a Westerner—he speaks of guiding principles and they are the same all the world over, though the shape that moulds the ideal may differ. He urges that "not only in the material and in the course, but yet more earnestly in the spirit of it, a girl's education should be as serious as a boy's." He goes on to say " You bring up your girls as if they were meant for sideboard ornaments and then complain of their frivolity. Give them the same advantages that you give their brothers—appeal to the same grand instincts of virtue in them: teach *them* also that courage and truth are the pillars of their beings:—do you think that they would not answer that appeal, brave and true as they are even now ? " But he points out one difference between the making of a girl's character and a boy's—"you may chisel a boy into shape, as you would a rock, or hammer him into it, if he be of a better kind, as you would a piece of bronze. But you cannot hammer a girl into anything. She grows as a flower does—she will wither without rain: she will decay in her sheath, as a narcissus will, if you do not give her air enough: she may fall, and defile her head in dust, if you leave her without help at some moments of her life: but you cannot fetter her . . . she must have always—

" Her household motions light and free  
And steps of virgin liberty. "

M. E. BUTLER.

## RELIGION AND PHILOSOPHY.\*

*Mysore University Studies: Philosophical* may well be congratulated on the volume with which they come into existence. Professor Radhakrishnan has produced a work that will be welcomed by every lover of philosophy. It is written from the standpoint of Absolute Idealism, and in seeking to establish the truth of this view he gives a masterly review of the leading philosophies of the day. Ward and Eucken, Bergson and James, Russell and Balfour are one and all sought to be convicted of inconsistent reasoning. When a man dares to think, the result must be absolutism : this is the burden of the author's philosophy, and he brings a wealth of erudition, keen intellect and untiring industry into play to show how all these leading philosophers of the day have germs of Idealism, and if in them these germs never sprouted, it is only because they failed in their allegiance to logic. After enjoying an undisputed sway for nearly half a century in the philosophic world, Idealism has recently been unmistakably on the decline. The age of Kant and Hegel was the period of its great creative activity ; the age of the Cairds and Green the period of its great influence, and aggressive conquest. To-day it is on the defensive. The writings of Dr. Bosanquet still picture a living Idealism, subsisting in spite of its enemies, while authors like Miss May Sinclair and Professor Radhakrishnan, as the soldiers of the Idealistic creed, carry the war into their enemies' country, and by exposing their defects seek to reaffirm the verities of Idealism. Such defenders are needed to-day, and they deserve the thanks of all lovers of truth. Miss May Sinclair's lightness of touch and freshness of treatment are perhaps lacking in Professor Radhakrishnan's book, but these defects are more than made up for by a logical keenness and a mastery of language which shine in every page of his book.

As an idealist I have no quarrel with the main conclusions of Professor Radhakrishnan. His creed happens to be my creed too. But this does not prevent me from disagreeing with him on many a point, not the least important being his attitude to the very idea of religion. If the reader begins with the last chapter on " Suggestions of an Approach to Reality based on the Upanishads"—and he would be justified in doing so, for what is the last in time is often the first in thought—he

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\* *The Reign of Religion in Contemporary Philosophy.* By S. Radhakrishnan, M.A., Professor of Philosophy, University of Mysore. MacMillan 12s. net.

will be agreeably impressed by the intense religiousness of the author. "Our knowledge aspires to something more than knowledge, an intuitive grasp of the fundamental unity; our morality to something more than morality, *viz.* religion; our self to something more than personality, *viz.*, God, or the Absolute. Our knowledge is incapable of bringing us into contact with the whole. It aims at the unity, though the limitations of intellect forbid the attainment of unity. The highest unity 'from which all speech with the mind turns away, unable to reach it' (Taittiriya Upanishad, ii. 4) cannot be grasped by intellect. *A mere thinker cannot understand the nature of reality*" (p. 434). This "*religious or intuitional experience is the summit of the whole evolution*. It is the crowning round of human life. It is the completion and consecration of the whole struggle. . . . Here terminates the philosopher's quest for reality in which thought can rest" (p. 437: the italics are ours). Passages like these, breathing the very essence of mysticism, extolling intuition over intellect, leave not a shadow of doubt regarding the genuine religiousness of Professor Radhakrishnan's outlook on life,—and what else can we expect from one who so frankly traces the best in his thought to the immortal Upanishads, the very incarnation of a philosophic religion or a religious philosophy?

Yet when we turn to the preface and the first chapters, we stumble across a number of passages where religion figures as "a plain man's" belief, which has nothing to do with philosophic truth. In fact the preface very explicitly says: "The current pluralistic systems are the outcome of the *interference of religious prejudice* with the genuine spirit of speculation. In this volume an examination of contemporary philosophy is undertaken with a view to showing how its deviations from the 'high road' of absolutism are all due to 'the reign of religion in philosophy'" (p. vii.). So religion is in an inferior category, its reign is not something to be rejoiced over, but something to be deplored. James and the Personal Idealists attempt to reconcile philosophy and religion, and our author falls foul of them in withering terms. Bergson seeks to find a place for God in his philosophy, and our author finds in this a proof conclusive of Bergson's unjustifiable democracy in philosophy. Dr. Ward struggles to prove the freedom of man and the reality of theism, and our author detects in all this nothing but an usurpation of the throne of philosophy by an upstart religious feeling! This is bewildering confusion much greater than the confusion in Isaac's mind between the voice of Jacob and the hand of Esau. Which is the true voice of Professor Radhakrishnan himself? Is he for intuitional mysticism, or for an intellectual philosophy? Is "religion" consistently used in one sense?

If the religion of Professor Radhakrishnan is not the religion of the pluralists, it is necessary to define wherein exactly they differ. He has omitted to do this in explicit terms, and this constitutes a serious blemish, vitiating not a little of the destructive criticism which constitutes the major portion of the book. If this difference is left to be inferred by the reader himself, he would be justified in concluding that what the author believes in—intuitively and intellectually—is religion, what “a plain man” believes in is mere “religious prejudice.” Orthodoxy is my doxy, heterodoxy is somebody else’s doxy, as the homely adage says!

However unsatisfactory this conclusion be, we cannot leave it at this stage, especially as the author himself has penned a most interesting chapter on “Science, Religion, and Philosophy.” The difference between philosophy and religion as he conceives it is neatly expressed on p. 5 : philosophy is “a product of thought and inquiry,” religion “of poetry and fancy.” “Philosophy answers the problem of the whole by logic, while religion answers it by faith.” In several passages philosophy has been described as *intellectual*.<sup>\*</sup> Logical consistency is declared to be the very gist of it. Whole-hearted loyalty to the sway of logic must characterise any philosophy worth the name. Supremacy of logic involves disinterestedness on the part of philosophy, and this in the sense that it has nothing to do with consequences. It is “its own end” (p. 11). It is not a means to anything else. In other words philosophy has truth as its end, while religion aims at the salvation of the soul (p. 5).

If this contrast were half so rigid as it is made out to be, the popular distrust of philosophy as an arid tissue of logical concepts would be more than justified. After all, the salvation of our soul—if there is a soul—is the most vital question for every man. If one way to salvation is through knowledge, surely philosophy cannot pretend to an utter indifference to consequences without committing suicide. This is just the strength of the Indian philosophy as compared with the western. Philosophy as the *gyana marga* cannot but illuminate the problem of life, and in so far as it fails to do so, it ceases to be satisfactory. Professor Radhakrishnan seems to be aware of this, when he speaks of “a fruitful rendering of the meaning of experience in its entirety” (p. 16 : italics ours), but loses sight of it in his criticism of non-idealistic systems of philosophy.

*Philosophy can never be disinterested, or at least it ought not to be.* It cannot afford to lose sight of the concrete problems of life. A philosophy which cannot guide the halting steps of man is fit merely to adorn

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\* Vide pages 1, 5, 11, 14, 15, 16, 412.

the shelves of an archaeological museum. It would be beside the mark to retort to this by the question whether there is not such a thing as knowledge for the sake of knowledge, whether the great scientists and philosophers do not feel subdued by an overpowering thirst for knowledge, which looks to nothing beyond its own satisfaction, whether the greatest discoveries of science were not rather chance deductions than definitely sought out ends. Our answer is that the disinterestedness sought to be proved by these questions refers only to some definitely conceived consequences, not to *all* consequences. A scientist working in his laboratory need not be conscious of what exactly the result of a particular experiment will be, but surely he knows that there will be *some* consequence, and further still, once he knows what this consequence is, he will think of utilising it for some purpose. So too with the philosopher. He perforce has to start with the data of experience; his task is to interpret these data, and if any particular interpretation is not consistent with the facts of experience, it would be open to him, nay as a lover of truth it would be his duty, to seek for another interpretation. If Idealism is the true philosophy, it must serve as a guide in life. If a philosopher feels that it is unsatisfactory in one way or another, there is no logical compulsion on him to believe in it as true. Consistency is indeed important in philosophy, but it is not the mere consistency of logical concepts, it is consistency with the facts of life. James and Russell, Bergson and Eucken, have felt the unsatisfactoriness of absolutism. They may be mistaken in their disaffection. But they are none the less philosophers because they refuse to enrol themselves under the banner of absolutism. Hence it is an unjust criticism to say with reference to living thinkers that "independence of thought, which is the breath and life of philosophy, has become rare, and the progress of philosophy is checked" (p. 12).

However acute Professor Radhakrishnan's critique of the present day tendencies in philosophy be, it suffers from one great defect—that he does not appreciate their role in the history of philosophy. As a follower of Hegel, he might have been expected to study each of the non-Idealistic systems as a phase in the growth of philosophy. Such a study requires a consideration of the peculiar historical conditions which form the concrete setting of every philosophical system. Hegelian Absolutism even at the zenith of its fame and power delighted in talking of the wholeness of the Absolute : the one Truth, the one Reality ; the reality of everything else was merged in it. Evil itself was explained as a necessary item in the world process. While the perfection of the Absolute suggested the idea of a completed evolution, the play of material

forces and human will appeared to be so many phantoms leading a meaningless existence. Hegelian Idealism in its rigid logical setting presented an appearance of austere majesty. In its truth, human truth lost all value. In its reality, human struggles became lost. Such was the interpretation that gained currency. A good deal of it was mistaken, but most of it was plausible. A reaction was bound to set in, and Darwin's biology offered a concrete standpoint for a naturalist attack on Idealism. The ghost of naturalism has only recently been set at rest. Ward's Naturalism and Agnosticism may well claim to have dealt the finishing blows on the effete evolutionary materialism. There was a sort of impasse created by the naive dogmatism and agnosticism of the evolutionist on the one hand, and by an aristocratic logical austerity of absolutism on the other. Religion as Christian Europe understood it came to be in a perilous condition. The faith of the masses was undermined without any concrete substitute having taken its place. Religion was discredited, and philosophy was the monopoly of a few. The acute need of the day was a humanising of philosophy, and a philosophising of religion. It is only in this light that the work of James and Ward, Eucken and Bergson can be appreciated. Theirs was a noble attempt, worthy the thanks of humanity, for they sought to give a philosophic basis to the creed of men. James and Bergson have introduced philosophy to the club-room and the drawing-room. They have made it speak the language of easy elegance. They delivered philosophy from the tyranny of tangled language. This by itself was a noble bequest to mankind. The synthesis of philosophy and religion has been established through their efforts as the great problem of the day. The anger and the fanaticism of the great historic religions of the world have divided mankind into hostile camps. Intolerance, persecution, tortures, wars have devastated the world in the name of a "merciful" and "forgiving" God. The only escape from this sordidness of the past is to kill the narrow dogmatism of priests, and to put in its place the freedom of thought. Metaphysics itself may come to have the holiness of true religion through its native zest for truth. The reign of religion, far from being the weakness of philosophy, is truly its crowning grace. This need of our age is a sufficient justification for the peculiar direction of philosophy during the last half a century. The crown of success must go to that philosophy, whether idealistic or non-idealistic, which has the virility to serve as a man's religion. Let this be the test of a genuine philosophy : does it illuminate the path of man, does it enoble his life ? If pragmatism, pluralism, Bergsonism are failures as systems of philosophy, it is not because they are

too religious : it is because they are not religious enough. If Professor Radhakrishnan's absolutism succeeds as philosophy, it is because it satisfies the religious quest of man, not because it dismisses religion as merely a " plain man's " concern. Ancient Greece and the Vedantic India of Sankara are the standing monuments to the possibility and greatness of a rationalised religion. It would only be a freak of nature if in the coming days of universal education we could not find a living religion in rational thought.\*

Even while admitting in stray passages that man thinks to live and does not live to think (p. 20), and that " philosophy when most itself will be religious, and religion in its deepest aspects will be philosophical " (p. 22), Professor Radhakrishnan's philosophy suffers from a note of aristocratic aloofness. " At the present day philosophy has become fundamentally plebeian or democratic. Its one self-chosen aim is to arrange the life of the ordinary man " (p. 31). And why not ? The political aristocracies of the world have done their best to stifle the germs of popular self-respect and popular awakening. By what evil necessity is philosophy for ever doomed to neglect the life of the ordinary man ? By all means let not his dogmatism be the test of truth, but his needs constitute a fact of experience, and it is those needs which a true philosophy, as religious, can never disdain to satisfy (p. 42).

Professor Radhakrishnan's over-emphasis on merely logical consistency lies at the root of all his criticisms, and explains why he is continually hesitating as to how far religion and philosophy can be made to go together. He adopts a striking, but none the less misleading metaphor, when, with Miss Sinclair, he regards philosophy as a game, having logic as its rules which cannot be contravened without falsifying the game. This would be true if philosophy were as artificial as a game. The essence of a game lies in the observance of its rules. Philosophy is not tied to any rules. It is conditioned only by truth, and truth may be approached in many ways. The ultimate failure of pragmatism or pluralism is to be accounted for by its failure to explain life, its problems and its cravings. Absolutism succeeds, not because of its allegiance to mechanical rules of logic, but because it is the best explanation so far afforded of the problem of life and the world. The unity of thought is a reflection of the unity of reality. The ruling principle is spirit. All is living, nothing is dead, for everything is a manifestation of spirit. Such in brief outline is absolutism. The content of the Absolute is ever progressing, ever expanding, the growing richness of

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\*Vide the article on *Philosophy and Life* in *East and West*, June, 1920.

age ever enriching it. Its perfection is found not in a static condition of changelessness, but in its capacity for infinite progress: a perfection that is endless.

We shall not pause to discuss in detail Professor Radhakrishnan's critique of the various philosophers of the day. It is thorough in its treatment of Leibnitzian Monadism, Ward's Pluralism and James's Pragmatism. The deficiencies of these systems, and their limitless inconsistencies, have been brought out with the touch of a master. But he is not equally cogent in his treatment of Bergson and Russell. The latter's Realism presents formidable difficulties to its critics, for Mr. Russell's philosophy has undergone protean changes, and inconsistencies recognised by the author cease to be inconsistencies. With the zest of "a free man" Mr. Russell is true to the demands of truth as he conceives it. He is indeed the most formidable foe of Absolutism. Ward and James are at bottom idealists, merely struggling to be pluralists and theists. But Russell has courage enough to deduce pessimism and atheism without any let or hindrance from the data of experience. Professor Radhakrishnan, and all idealists, can simply differ from him; they cannot convict him of inconsistencies, which are usually the result of attempts at compromising. The difference between Idealism and the new Realism is too profound and thorough to be ever bridged. If the new Realism ever comes to be a living creed of many, it can only be when the religious consciousness of the many has undergone a radical change, when they cease to believe in progress, and are content to glide out of existence after putting up a valiant fight against the forces of darkness.

Out of the crucible of our Author's criticism, Bergson emerges in a mangled form. But the Bergson painted as the easy-going philosopher of democracy is not the real Bergson of the Creative Evolution. The absolutistic implications in Bergson's thought are grossly exaggerated. If he is a monist, he is certainly not one in the idealistic sense. His monism is confined to the original oneness of *elan vital*. His repudiation of teleology cuts away the very possibility of a purposive unity pervading the universe. Professor Radhakrishnan's account of "matter" in Bergson misses the whole spirit of Bergson's teaching. Bergson himself is partly to be blamed for this, for in spite of his usual lucidity he has not exposed the ambiguity which lurks in the term. The whole teaching of the Creative Evolution emphasises the universality of *elan-vital*, which spells the death of lifeless matter. Matter as lifeless does not exist. Matter as a concept is a mere fiction of the intellect. Hence there is no dualism of spirit and matter. There is only spirit as working

on matter. If this is dualism, idealism is equally so. Idealism and Bergsonism equally emphasise spirit. Bergsonism is weak in its rejection of teleology. It is strong in its emphasis on the supreme need of movement. The static perfectionism of some idealists and evolutionism find their genuine synthesis in Bergson's Creative Evolution.

The courage with which Bergson expounds the limitations of intellect is a sufficient refutation of his supposed democratic leanings in philosophy, with the implied want of independence of thought. One can conceivably argue that the contrast of intellect and intuition is needlessly exaggerated by Bergson. But his emphasis on intuition and distrust of intellect cannot be fairly condemned by Professor Radhakrishnan when he himself in his last chapter develops an identical difference and argues that intuition is "the crown of reason" (p. 438), and contrasts "our narrow intellectual visions" with intuition as "the most complete experience we can possibly have" (p. 439). The Upanishadic difference between *vijnana* and *ananda* also rests on a recognition of the inferiority of intellect as such. Bergson's thought is not absolutistic, but it is most suggestive in its applicability to absolutism.

It was a most happy thought on the part of Professor Radhakrishnan to have added the last chapter, for it gives us definitely the standpoint from which he approaches other systems of philosophy, and at the same time redeems the book from the charge of being merely critical. He bases his Idealism on chap. III of the *Taittiriya Upanishad*, in which the son Bhrigu undergoes a reflective discipline under the guidance of the father Varuna. Reality is *Brahma*, and *Brahma* is "that from whence these beings are born, that by which when born they live, that into which they enter at their death." The son seeks to describe it in various ways, but his first efforts are unavailing; they yield only partial glimpses of truth. *Brahman* is neither *Annam* (food, matter), nor *Prana* (life), nor *Manas* (perceptual consciousness), nor even *Vijnana* (understanding or intellect). It is ultimately described as *Ananda* (bliss). So it is "from *Ananda* these beings are born; by *Ananda* when born they live; into *Ananda* they enter at their death" (p. 435). Thus *Ananda* is *Brahman*, it is the Absolute. It marks the completest vision of life. Mere intellect as such cannot hope to grasp it. It is only through intuition that we realise *Brahman*. It is only through evil that the cosmic process is realising itself. Hence evil is but *Maya*, it is not genuinely evil, and does not tarnish the purity and perfection of *Ananda*.

Such is a brief outline of that important chapter, comprising Professor Radhakrishnan's own philosophic views. The Upanishads are

his teacher, and with the devotion of a *chela* he concludes his book with a remarkable sentence which pictures all subsequent philosophy as merely "an unconscious commentary on the Upanishadic ideal."

In the space of forty pages the author has given us most suggestive thoughts. Yet the chapter itself is essentially tantalising. It creates a desire for more and more. It evokes doubts, which its very brevity prevents from being put to rest. What exactly, for instance, is this intuitive experience? How is it related to intellect? Is the comprehension of *Ananda* as *Brahman* essentially rational or mystical? If it is mysticism, can it be considered genuine philosophy, since philosophy has been again and again described as rational and intellectual and logical? If it is mysticism, how is it distinguished from the Christian mystic experience of a personal God? How is it related to the intuition of Bergson?

The author's treatment of evil errs somewhat on the side of mere rhetoric. His justification of its existence is more entertaining than satisfying. Human consciousness is too deeply soaked in evil to be content to push it aside as a mere necessity. How is it necessary? Even if evil in general is found to be necessary, what explanation is forthcoming of the most unequal distribution of evil in the lives of individuals? True, no man is or can be perfectly happy. But why is it that one is ground down by poverty, another is racked with disease, another is agonised by the too early loss of his dear and near ones? To a man writhing under pain, it is cold comfort to say that the universe needs evil. Western philosophy generally has failed to answer this riddle of riddles. Indian philosophy boldly answers it by its doctrine of *karma*, and herein lies its genuine greatness. Oddly enough Professor Radhakrishnan has not at all sought to discuss it, and hence his account of evil suffers from the defects of the usual Idealistic accounts of it.

We have raised these difficulties not by way of criticism, but as humble suggestions, with the conviction that Professor Radhakrishnan has the necessary grit to tackle these problems and give us a book instead of a bewilderingly suggestive brief chapter. The author holds out a seductive promise in his preface: "Indications of a positive idealism which are found scattered in the course of the book are brought together in the last chapter. There is no establishment of the system as such. This must wait for another place and occasion." May this place and occasion come soon. Lovers of philosophy will anxiously await the birth of the promised work, a fitting crown of a philosopher's career.

## THE SUBSTANCE OF SHAKESPEARIAN COMEDY.

### I.

It is not the object of this essay to attempt an analysis of the comic spirit in Shakespeare. I am concerned with Shakespearian Comedy as a particular form in drama. The comic spirit in Shakespeare is not restricted to the plays distinctively styled Comedies. It is found elsewhere, notably in the English Histories and especially in the character of Falstaff, the crowning achievement of Shakespeare's comic genius. It is not absent even in the tragedies, though it exists there with a difference and serves distinct purposes.

In the Comedies, moreover, the comic spirit is very far from pervading the whole to the exclusion of other things. With the main interest of Shakespearian Comedy, the comic spirit is scarcely at all concerned. Broadly speaking, the matter of Shakespearian Comedy is the matter of Romance; and while it is of the essence of Romance to be comprehensive, while Romance admits the comic spirit within a corner of the field, the allotted area is strictly limited. Romance and the comic spirit cannot well live together on any terms of equality. The comic spirit all-pervasive in *Don Quixote* slew the Romances of chivalry; the comic spirit in Falstaff proved almost too much for a grave historic theme supported by a high epic seriousness. Falstaff, we may be certain, would have killed a Shakespearian Comedy. Inferior Falstafis, such as Sir Toby Belch, Romantic Comedy may admit, but only on terms of strict subordination. Benedick and Beatrice, who are not subordinate characters, seem at first to belong to pure Comedy; but only for a while, till the romance of the play catches them up and they become transfigured, if not transformed. And so through all the characteristically Shakespearian Comedies, the comic spirit appears again and again, but always, as it were, on sufferance, ministering to the purposes of Romance, not using a Romantic theme to serve a purely comic end.

For Romance, with aims often only half-serious, persistently demands, amid all its play of fancy, improbability or frank absurdity, to

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\* This Essay was read some time ago before the Madras Branch of the English Association, and privately printed for the members of that Branch. Mr. Hunter very kindly permits us to reproduce it, a kindness which we appreciate the more because we believe that no equally valuable Essay on this subject exists—Ed.

be taken seriously ; pure Comedy, with ends often wholly serious, lives in an atmosphere of transparent make-believe, to which serious treatment is antagonistic. If we cannot identify ourselves sympathetically with the romantic creation we lose the charm; if we take the comic creation seriously we miss the point. For the element which the comic spirit inhabits, if it be, as George Meredith assures us, a subtle something distinct from satire and mocking irony, is nevertheless of a quality not far removed and not readily distinguishable from these. To Romantic Comedy, on the other hand, so far as it is romantic, irony, satire, or anything approaching irony and satire, is alien. Something of satire may be present in Romantic Comedy, for Romance admits all manner of heterogeneous ingredients, but it is not permitted to invade the main theme. When it does, as in Shakespeare's *Troilus and Cressida*, the Romance evaporates, leaving an impression of something nondescript; something that fails to satisfy, that unpleasantly shocks or startles as by the presence of distinctly felt incongruity.

Probably it would be more accurate to speak of the plays we are considering not as comedies at all, but simply, with Meredith, as Romantic plays. For if a comedy be the manifestation in drama of the comic spirit, as Meredith conceives it, plays such as *As You Like It* and the *Merchant of Venice* are not Comedies at all, since in these compositions the comic spirit is only fitfully present, and is certainly not the source of their special charm. I suppose many besides myself, when reading for the first time Meredith's wonderfully subtle analysis of Comedy and the comic spirit, have experienced a certain surprise, and perhaps a little disappointment, in discovering how small a part of the essay has direct reference, or is even capable of application to the Comedies of Shakespeare. True, Meredith places Shakespeare with Cervantes between Aristophanes and Molière, "with much of the Aristophanic robustness, something of Molière's delicacy;" true, he speaks of Shakespeare as "a well-spring of characters which are saturated with the comic spirit;" but he immediately qualifies the admission by adding that, though these characters belong to the world, "they are of the wor'd enlarged to our embrace by imagination, and by great poetic imagination;" they are "creatures of the woods and wilds, not in walled towns, not grouped and toned to pursue a comic exhibition of the narrower world of society"—the narrow world, that is to say, which according to Meredith, is the proper province of the comic spirit; in which alone the authority of the comic spirit is recognised and accepted. And the characters which Meredith selects in Shakespeare as "subjects of a special study in the poetically comic" are, with three exceptions to

be named immediately, none of them principal characters in the plays to which they belong. They are Jacques, 'the varied troop of clowns,' Malvolio, Sir Hugh Evans, Fluellen and Dogberry, the exceptions being Falstaff, Benedick and Beatrice. Falstaff, as we have noted, belongs to the Histories, not to the Comedies, for the Falstaff of the *Merry Wives* is, by the general verdict of criticism, other than the Falstaff of *Henry IV*; while the *Merry Wives* itself is not a characteristically Shakespearian Romantic Comedy, but rather a sort of Romantic farce written, according to credible tradition, to royal order. Benedick and Beatrice I have already classed as partly comic creations, but it is not by the spirit of Comedy but the spirit of Romance that what is best and most individual in their nature is revealed. It is indeed from a situation of pure Comedy that Beatrice emerges a heroine of Romance, but the transformation is distinctly marked, were it only in the lyric intensity of the alternate rhymes,

What fire is in mine eares ? Can this be true ?  
Stand I condemn'd for pride and scoine so much ?  
Contempt, farewell, and maiden pride adew,  
No glory liues behinde the backe of such....

and so, through a second stanza to the self-revelation, the complete discarding of the comic disguise in the concluding couplet,

For others say thou dost deserve, and I  
Beleeue it better than reportingly.

There is here no food for laughter however delicate ; the intrusion of the comic spirit at this point would amount almost to a sacrilege.

With Benedick the transition from Comedy to Romance is no less clearly marked, though the lyric note is wanting. One observes it in his bearing during the Church scene, and even more in the quiet dignity with which a little later he confronts the flouts and gibes of Claudio and the Prince—a scene which has always appeared to me a perfect example of unerring taste in dramatic dialogue. In this scene, it is true, the comic spirit chatters gaily along in the banter of Claudio and the Prince, but in the presence of Benedick, now a hero of Romance, redresser of wrong and champion of the unfortunate, the light laughter seems little better than the crackling of thorns under a pot, empty noise without warmth or glow.

## II.

So far we have scarcely advanced beyond the negative conclusion that the substance of Shakespearian Comedy, its matter and manner, is not the substance of pure Comedy of the classic type. In endeavouring

to reach a positive standpoint, it will be best, no doubt, to keep chiefly in view the plays generally regarded as the most finished products of their kind, the four great Comedies of the so-called 'second period,' *The Merchant of Venice*, *As You Like It*, *Much Ado About Nothing* and *Twelfth Night*; but a survey of the whole field would, I believe, furnish results tending strongly to confirm rather than conflicting with the results obtained from a study confined to the more limited area.

The comedies written in what is called the period of apprenticeship, when Shakespeare had not as yet completely 'found himself,' but was still experimenting, would show a gradual but steady approximation, in each line of enquiry, towards the finished type, both as regards matter and manner finally accepted as fit and appropriate, and as regards matter finally rejected as unfit. For example, in so early and in some respects so imperfectly characteristic a play as *The Comedy of Error*, we should observe the superimposition of a Romantic story and motive—features which in later plays are persistent—upon a theme borrowed from classic farce. In this and other plays of the same period we should note, not only the distinctively Romantic treatment of character, but in the matter of construction, the association in a single play of several independent or interdependent plots and interests, and the combination of more or less clearly defined character-groups, conditions constant in the later comedies, and here noticeably present, though with a difference; the parts deftly arranged and proportioned, but with somewhat too obvious mechanism, somewhat too obtrusive symmetry; not as yet completely fused or organic; so that, even in a play so imperfect and, in a sense, crude as *The Two Gentlemen of Verona*, we could discern, though still in a stage of incomplete development, almost all the essential features which hereafter in duly proportioned combination we should recognise as the distinguishing characteristics—the substance—of mature Shakespearian Comedy.

Again, leaving on one side the four great comedies of the second period, if we turn our attention to a group of plays of uncertain date, but plainly neither early work nor the very latest, and in part beyond question falling within the 'tragic period,'—the plays by some called the 'tragi-comedies,' by others the 'problem-plays,' *All's Well That Ends Well*, *Measure for Measure* and *Troilus and Cressida*, we may at first sight reasonably doubt whether there is room and place for comedies such as these within a class of which *Twelfth Night* and *As You Like It* can be named as typical examples. That these plays are exceptional must be readily admitted; that they are, moreover, regarded as

wholes, and apart from great passages, great character-drawing and great situations, distinctly unsatisfactory should also, I think, be allowed. But they are exceptions that approve the rule ; they fail to satisfy just because, or largely because, agreeing in general form and treatment with Romantic Comedy as Shakespeare normally conceived it, they admit discordant elements, which will not harmonise with the Romantic setting, which are at variance with the spirit of Romance. In all these the story selected is a story merely painful and distressing, and therefore both unfit for tragic treatment and too sombre to allow of a Romantic colouring in Comedy, involving, moreover, a condition sufficient to disqualify in either form, in two of the plays the moral degradation of the Romantic hero, in the third the moral degradation of the Romantic heroine. In *Troilus and Cressida*, as I have already remarked, we have in addition the intrusion of the element of satire in the main Romantic theme. Whatever exactly be the determining factor in each case, to whatever cause we assign the presence of that factor, apart from the disturbing element, the matter and manner of the 'problem-plays' is the matter and manner of normal Romantic Comedy, and consequently the exceptional condition may legitimately be set aside as accidental.

The latest comedies, often distinctively styled the Romances, *Cymbeline*, *A Winter's Tale* and *The Tempest* present, I confess, greater difficulty. Here we have not so much to reckon with a particular incongruity; we have rather to recognise a variation in type. It is impossible just now to treat the question in any detail. I content myself with merely offering a suggestion that a solution of the difficulty might be found in a blend of, or a compromise between, three conflicting views. The first is the view, associated with the name of Professor Dowden, that in the 'Romances' we have to recognise partly a survival of, partly a reaction from the 'tragic period.' So much perhaps may be safely accepted; the further assumption of a definite and determining change in the poet's spiritual 'relation to the universe' seems to me entirely unnecessary. The second view is that put forward with very considerable force and cogency by Professor Thorndike, that Shakespeare, for reasons sufficient in themselves but not affecting the present enquiry, towards the end of his career deliberately turned his back on pure tragedy and casting about for another form, no less deliberately adopted a type recently popularised by Beaumont and Fletcher. The third view, that of Mr. E. H. C. Oliphant, is that in *Cymbeline*, *The Winter's Tale* and *The Tempest*, as by general admission in *Pericles* and *Henry VIII*, we have to reckon with work which in large part is not Shakespeare's at all, but contributed by a lesser poet. Now, granting a certain

element of truth, or at least a certain measure of probability, in each of these views, it will still be necessary to add, and the addition is sufficient for our purpose, that in introducing tragic or semi-tragic motive and character into plays destined to end happily, in adopting and modifying to this end a type of play invented by Beaumont and Fletcher, possibly accepting the collaboration of another poet, Shakespeare nevertheless, both in characterisation and in construction—for that the general structure of these plays is Shakespeare's and thoroughly Shakespearian I cannot question—reverted to, and applied in the old way, the methods which he habitually practised in the comedies of the 'second period' and which in great measure constitute their 'substance.'

### III.

At this point we may introduce a brief enquiry, not irrelevant to the subject of the paper, and serving at least to remove a possible misconception. When we postulate a 'substance' discoverable in all Shakespeare's comedies, do we thereby imply and affirm a corresponding *theory* of Comedy definitely held by the poet, in accordance with which his comedies were regularly composed? My answer to the question is in the negative. Though we affirm a substance, an accepted and consistently followed practice, involving the admission of a set of principles and preferences, the presumption of a consciously formulated and accepted theory is unnecessary—and so far as Shakespeare is concerned, is highly improbable. When Ben Jonson said that Shakespeare 'wanted art' he referred just to such conscious art as the presumption of a theory of art involves; the conscious art of which Jonson himself, in practice and precept, was so prominent an exponent; the strict adherence to established and formulated rule, which however characteristic of Jonson is about the last thing likely to be associated with the practice of Shakespeare.

No one has ever contended or could contend that Shakespeare constructed his plays in conformity with established rules approved by the critical judgment, as distinct from the artistic practice of his day. That the practice of the Romantic dramatist was in flat defiance of all the 'rules' is a commonplace. But an artist rejecting rules laid down by others or sanctioned by antiquity may formulate a code for himself which in his own practice he may recognise as binding. In other words he may be a conscious innovator. The alternative assumption is equally inadmissible in the case of Shakespeare. Innovator, in the ordinary sense, he assuredly was not. Indeed if innovation, the striking out of new and independent paths, the creation of novel

art-forms, be the special note of original genius, there were many amongst Shakespeare's contemporaries—not to speak of later writers—whose claims to original genius could be far more easily established than his. When we regard Shakespeare as a great artist, when we speak of the 'substance' of his so great art, we have in mind merely or chiefly the intuitive taste, the instinctive judgment, displayed throughout in the choice, rejection and arrangement of matter which he found ready to his hand, which others were already working upon, and working upon along lines from which Shakespeare was at no pains to diverge.

We may further say that with Shakespeare, when engaged upon a play, the production of a finished and regularly fashioned work of art was not the first consideration, was possibly at no time a very urgent consideration at all. His first concern, be it said with reverence,—I do not say his last or chief, far less his only concern—was simply to provide an entertainment; and towards the making of an entertainment he literally took what was going; selecting, of course, and rejecting according to taste and inclination, but not, in all probability, in accordance with any preconceived theory of art. Shakespeare borrowed freely; laid this or that contemporary or predecessor under contribution, took as model this or that form which some other had rendered popular; experimenting in Historical Tragedy on the lines and largely in the spirit laid down and bequeathed by Marlowe; accepting the Tragedy of Revenge and Blood from Kyd, and incidentally making a *Hamlet* out of it; taking up Romantic Comedy where Greene had left it; and later, at the very end of his career, perhaps borrowing from his juniors Beaumont and Fletcher a type of play which they had made specially their own.

All this borrowing, imitating and adapting militates against the assumption that Shakespeare started with a definite theory of Dramatic art or ever arrived at such theory. It does not however affect, for example, Professor Bradley's finely critical analysis of the Substance of Shakespearian Tragedy, or render illegitimate the humbler undertaking of the present evening. For while it is certain that Shakespeare, in whatever he undertook, invariably set out upon a beaten track, and that consequently from one point, indeed from several points of view, no account of Shakespearian Tragedy or Comedy can be adequate which is not based upon an examination of the Elizabethan drama as a whole; on the other hand it is equally certain that the finished work of Shakespeare stands at an immeasurable distance from even the best work of his predecessors, contemporaries and successors; not only from

the work of such a dramatist as Ben Jonson who, in his own undeniably great way, sought out and followed principles which were not those of Shakespeare ; or from mixed types such as Dekker, Middleton and Heywood ; but from the work of poets such as Greene, among the early Elizabethans, and Beaumont, Fletcher, Massinger, Ford and Webster among the later, who with Shakespeare may be classed as distinctively Romantic writers. Any account of the Substance of Shakespearian Drama must assuredly reckon with much that Shakespeare simply took over from others ; but it has to reckon a great deal more with what Shakespeare refused to take over, or merely took over in order to modify and transform. And this implies, not indeed a formulated theory of drama, but definitely held preferences in the technical, artistic, or ethical provinces ; in other words, a substance, a consistent and coherent set of principles informing the whole work, and serving when taken in conjunction to distinguish it from that of others.

#### IV.

Of the principles or preferences which, taken together, constitute the substance of Shakespearian Comedy, we must place in the forefront the all-determining and in a sense all-inclusive preference for the Romantic form. What is alien to Romance is alien to Shakespeare's genius, to what we feel to be distinctively Shakespearian. Let us admit all necessary qualifications. Romanticism and Classicism are in essentials merely diverging tendencies, a tendency on the one hand to exalt the element of imagination and inspiration in art, on the other to lay stress upon reason and formulated rule. Slightly altering the point of view, Classicism may be described as a protest against lawlessness and extravagant absurdity in art ; Romanticism a counter-protest against rigid formula and lifeless pedantry. We must further admit that the great artist in either class, if he be really great, must include and reconcile in himself both tendencies ; must include much that his class does not distinctly stand for, much that his class may be supposed to stand against. Still each class, apart from these distinctive tendencies, has its own preferences in matter, manner and general outlook, which preferences the greater artist shares with the less. And the preferences of Shakespeare are all Romantic ; forms and subject-matter alien to Romance, not suited to Romantic treatment, Shakespeare left untouched, though by his predecessors and contemporaries such things were freely exploited.

Shakespeare's universality of sympathy and appeal should not lead us to forget that as an artist he worked throughout in a narrowly

restricted province. He confined himself both in Tragedy and Comedy to the Romantic story. Domestic Tragedy, of which the Elizabethan drama furnishes many examples, he eschewed altogether. His Comedy is invariably Romantic Comedy, not Comedy of intrigue or of manners, not Comedy satirical in treatment or with a pronouncedly didactic end. In true Romantic Comedy the story is the main thing, not merely a framework to be adorned and concealed by other things. Whatever else is there—and we may call the other things the more important, if we choose, as, in a sense, they are—rises inevitably out of the story, is subservient to it, to bring it to its tragic or prosperous close. Further, with Shakespeare the subject-matter of the story accords with the preference of Romance. It is just such a tale as the more dignified of Chaucer's pilgrims related to beguile the way from Southwark to Canterbury,—for it may be observed that Shakespeare, both in his acceptance of the Romantic theme, and in the means adopted to humanise it and give it a permanent and universal value, is a true descendant of Chaucer. The Romantic story has to do with situations and incidents which are strange and wonderful, unfamiliar and remote. This feature of unusualness and remoteness is an essential in Shakespearian drama; it is, we may say, part of the substance of Shakespearian Tragedy no less than of Shakespearian Comedy. The inherent improbability, not indeed in any striking manner of the incidents, but of the situation, in almost all Shakespeare's plays requires no laboured demonstration. It is gross, palpable and glaring, not less, but rather more so in the Tragedies than in the Comedies. Hamlet is a ghost story; the fable of Macbeth is steeped in witchcraft, and the plots of Othello and Lear, though they dispense with the supernatural, rise out of situations which defy likelihood. In the Comedies, improbable situations do not merely occur, they are of the essence of the story.

Improbability in the Comedies, however, is a *Romantic*, not a farcical improbability; not improbability arising from comic exaggeration of character, namely caricature; or from comic exaggeration of incident, that is to say, from unlikely coincidences or sequence of incidents, which by reason of their number or sequence produce a comic effect, though taken separately they may be neither improbable nor particularly comic. Something of this no doubt occurs in Shakespeare, but it belongs to his pure Comedy and is subordinate. Romantic improbability is of an altogether different nature. It is not comic at all; it is on the other hand generally picturesque.

Three of Shakespeare's comedies might be cited as exceptions to the general statement that Shakespeare prefers a Romantic to comic

improbability. One of these, *The Taming of the Shrew*, is a recast of a pre-Shakespearian play. Another, *The Comedy of Errors*, I have already noticed as an adaptation of a classical farce, so adapted however, that the classic fable with its comic improbability becomes merely the culminating incident in a Romantic plot, based on a situation of Romantic improbability and leading to a Romantic resolution. The third, *The Merry Wives of Windsor*, to be named as an exception under almost every head, is here a very significant exception. The main plot, at any rate the main interest, in the *Merry Wives* is farcical, and abounds in farcical improbabilities and surprises. But even in such conditions Shakespeare, incorrigible Romanticist as he is, cannot escape the Romantic spell. Not only is the sub-plot, the Anne Page story, thoroughly Romantic in feeling and treatment, but the play ends, the entire fifth act is steeped in the atmosphere of Romance; not indeed genuine Romance, but exquisite make-believe. The scene is Windsor forest under the oak of Herne the phantom-hunter, and the stage is crowded with satyrs, hob-goblins and fairies.

Again, as the Romantic story arises from a situation essentially improbable, so is the setting of the story invariably unfamiliar and remote, as regards the time or place of the story, or in both respects. We may remark that the scene in every one of Shakespeare's tragedies and comedies—*The Merry Wives* again an exception—is laid either in some place at a distance from England, or if in England, in times which belong to a remote past. The only plays other than the English Histories and *The Merry Wives* in which any part of the action takes place on English soil, are *Lear*, *Macbeth* and *Cymbeline*. *Lear* and *Cymbeline* are legendary figures belonging to Roman or pre-Roman Britain: the tragedy of Macbeth, in which in four out of five acts the scene is laid in Scotland—in Shakespeare's time remote enough—belongs to the reign of Edward the Confessor.

The advantage of the Romantic preference for remoteness in time and place—Classic *Tragedy* has a similar preference—is obvious. Remoteness weakens or completely removes the impression of improbability; for of course Romance, though depending for its effect on the improbable, does not aim at conveying an impression of improbability, but rather seeks to invest the strange and wonderful with an air of likelihood. We can more readily give credence to a strange story if the events are represented as occurring in a distant and unknown country, or in an age long past, than if we were asked to accept them as happening the day before yesterday, at our own door, or in the next street.

The second point to be observed in relation to the story in Shakespearian Comedy is that it is a story not only of high life, but of the highest in each particular case possible. Glance through the lists of *dramatis personæ* and you will find this preference only once disregarded, the solitary exception being, once more, *The Merry Wives*. In this matter the practice of Shakespeare is strangely contrasted, to the point of complete defiance, with the practice enjoined in the construction of Comedy by classic or neo-classic rule. "The characters in Comedy," says Scaliger (I quote Prof. Spingarn) "are chiefly old men, slaves, courtesans, all in humble stations or from small villages." And the other critics of the neo-classic school, Italian, French and English, enunciate rules to much the same effect. But Shakespeare was a child of Romance and cared little for neo-classic rule. It is of the essence of Romance, in this and other respects, that it takes account only incidentally of average values and of the affairs of humble or everyday life. We speak, no doubt, of Romances, as we speak of Tragedies in humble life, but we speak merely metaphorically, as if we said: In this charming or sad story there is matter which in changed conditions would be matter for Romance or Tragedy.

This preference for high life helps to distinguish Shakespearian Comedy not only from most of the Comedies which now hold the stage, but from a very large section, perhaps the major section, of the comedies of his own time. We need not put the question, sometimes urged, whether it would not have been better had Shakespeare in Comedy represented the life of his own time, his own country, his own class, which he presumably knew best. Such a question really amounts to asking whether it would not have been better for Shakespeare not to be a Romantic poet. As a Romantic poet, following faithfully the traditions of Romance, he could not choose otherwise than as he did. And Romance is justified in her choice. Other things being equal, or to be more precise, given the requisite power in the Romantic poet to move naturally and freely in the exalted environment, he makes from such heights his emotional appeal at very considerable advantage. As in the sphere of Tragedy 'the sight most pitiful in the meanest wretch' is 'past speaking of in a king,' so in the same manner the charm of Romantic Comedy is enhanced in proportion to the raised level of the surroundings. Certainly if the emotional appeal were made, in the one case, through the revolting or the horrible, in the other through the merely grotesque or ludicrous, a dignified environment would no doubt be a hindrance rather than a help; but the note of Romantic Tragedy is not the horrible; the note of Romantic Comedy is not the ridiculous.

The third point to be noticed in regard to the story of Romantic Comedy is that it is a love story treated seriously, moving through a number of checks and trying complications to a prosperous ending ; a story of which the hero and heroine, with Shakespeare particularly the heroine, are not only highly placed, but in the main highly gifted, gracious and charming people ; creatures whom the poet expects us not only cordially to like, but cordially to admire. If the Romantic hero and heroine do not appear to us to be particularly admirable it may be the poet's fault, on the other hand it may be our own. It was probably Hazlitt's fault that Portia seemed to him a pedant, and Campbell's fault, that he regarded Beatrice as a 'tartar' and an 'odious woman.' To most of us, I expect these splendid women will appeal as they appealed to Mrs. Jameson and Helen Faucit, and if they so appeal,—and not only they but figures less noble than they, Benedick, Orlando, Bassanio—the impression we receive is beyond question the impression that Shakespeare intended, that it was his business as Romantic poet to convey.

It is true that Romantic Comedy, alongside the admirable hero or heroine, admits in the subordinate or secondary plot heroes, if we may call them so, not so admirable ; such as Proteus in the *Two Gentlemen*, Claudio in *Much Ado*, Oliver in *As You Like It*, Lorenzo and Gratiano—particularly Gratiano—in the *Merchant of Venice*. The representation of imperfect human beings for whom on the whole sympathy is aroused, lends verisimilitude to the idealised life of Romantic Comedy ; but not only that ; the imperfect characters serve partly as foils to the true Romantic heroes, and so far enhance the desired impression, without by any great excess of imperfection at the same time weakening at the close the sense of generous and tolerant satisfaction with life which it is the aim of Romantic Comedy to impart. For the peculiar delightfulness of Romantic Comedy, as we have it in Shakespeare, rises, I think, principally from the contemplation of objects of beauty and worth satisfying an ideal standard but nevertheless impressing us as being not far removed from everyday experience.

## V.

The story which forms the main plot of a Shakespearian Comedy is, we have seen, in its way a serious story, and the chief personages of the story are, on the whole, admirable creatures, capable in no small degree of inspiring both interest and sympathy. Still, when all is said, the single Romantic story in Comedy is no great matter ; and neither action nor character in the single story is sufficiently engrossing to

sustain interest at the proper tension through a five-act play. In this respect Romantic Comedy is sharply distinguished from Romantic Tragedy. In Shakespearian Tragedy—*Lear* being a remarkable exception—interest and action are single. There are no secondary or subordinate plots. The interest aroused by the tragic hero throws into the shade all other interests arising from character. the minor personages of the play being strictly subordinate to the tragic hero, and significant, for the most part, only in reference to him. To restore the balance in Comedy, Shakespeare has recourse to the secondary plot, or to several such plots, not merely set alongside of the main plot, or loosely attached to it, but closely woven into it, so as to form with it a single texture. Through complexity of plot is secured a compensating variety, both variety of character-interest, and variety of delight afforded by the alternation of two or more Romantic themes, together with a greater or less admixture of pure Comedy not Romantic. This is an essential feature in Shakespearian Comedy. It was, of course, no innovation. The practice of diversifying and enlivening a dramatic entertainment by bringing together several plots, and by mixing Romantic with Comic matter, in a single play, Shakespeare took over from his immediate predecessors, who in their turn merely handed down an older tradition. What is distinctive in Shakespeare is that he first, nay he alone, perceived and realised the capabilities inherent in the inherited practice ; he first, he alone, succeeded in fusing the heterogeneous elements into essential unity.

To attain unity of action and interest through the Romantic form is a great artistic achievement, and just because it is so difficult is of very rare accomplishment. It is perhaps well to remember when we institute comparisons, just enough in their way, between the nicely adjusted proportions of classical drama and the lawless exuberance of the Romantic, that success in the simpler form is to be had on much easier terms than in the more complex. To contend that Shakespeare was always completely successful, that all his Comedies exhibit perfect unity, would be uncritical. Nevertheless the degree of success attained is very remarkable, and in itself is quite sufficient to dispose of the notion—if any one still entertains it—that Shakespeare was a lawless genius who ‘ wanted art.’

How great was his achievement can be adequately realised only by a comparison of his work with the work of other Elizabethan writers of Romantic or semi-Romantic drama. We may take a single instance. Shakespeare’s obligation to Greene in Comedy has been frequently asserted, and by no one more emphatically than by Greene’s most

recent editor, the late Prof. Churton Collins. Well, take Greene's admittedly most successful play, *The Honorable History of Friar Bacon*. In this drama Greene gives us Romantic variety with a lavish hand. The play literally answers to Polonius's classification of the ' tragical-comical-historical-pastoral,' for all these elements are mixed up in it. Variety we have with a vengeance. To speak of unity of any sort, either in the blending of plots or in other respects, would be absurd. The play, like all Romantic Comedies earlier than Shakespeare, I think I may say, like all Elizabethan Romantic Comedies outside Shakespeare, is little better than a number of slight, crudely conceived, separate plays loosely strung together in a single variety entertainment. Greene taught Shakespeare something no doubt, but the lesson he taught was one he never learnt, to all appearance never could have learnt himself.

When Shakespeare, speaking through Polonius, gently satirised the tragical-comical-historical-pastoral order of play, he was thinking no doubt of just such Comedies as this of Greene's. Shakespeare himself followed Greene, but with a difference. Matter approaching Tragedy we find in Shakespeare's Comedies, notably in the *Merchant of Venice*, in *Cymbeline* and in the *Winter's Tale*. Such matter however only approaches Tragedy, shares certain qualities with Tragedy, but is still, as Dr. Bradley has shown with reference to the two later plays, perfectly distinct.

The *Merchant of Venice* Dr. Bradley criticises somewhat adversely. The play, he says, fails to satisfy because Shylock is a tragic character, who does not move, as the fitness of things requires, to a tragic end, but to a conclusion beneath tragic dignity, incongruous and not in keeping with the character. This criticism, which is merely incidental, I venture to think, mistaken. Shakespeare, as it appears to me, has carefully avoided the error of taste and judgment imputed to him. Shylock, in spite of certain appearances to the contrary, is not a tragic figure ; for just when he seems to reach tragic greatness, to stand forth as champion and avenger of an ancient and down-trodden race whom he deeply wronged in person and family, not unworthily represents,—just at these moments Shakespeare introduces some little touch of character—something strikingly mean, petty, grotesque or contemptible which brings down Shylock as tragic hero with a rush. These things are significant to one carefully studying the text ; an actor can of course easily slur them over.

Again, contrary to the practice of Greene and other Elizabethans, Shakespeare never blends Romance with History, or with what to his contemporaries would have the impression of actual history. In the historical plays which are not also Tragedies, Shakespeare seeks variety

of interest in an admixture of pure, not romantic Comedy. The stately historic theme, falling short of high tragic seriousness, and therefore lacking the all-absorbing interest and universal significance of Tragedy, demands, not only dramatic relief, but, with the relief, something which will lend the action verisimilitude by bringing it, as it were, down to common life, and within the compass of ordinary experience. This element it finds in pure Comedy. For historic truth will not blend with the ideal truth of Romantic story. Historic fact injures Romantic illusion, and Romantic illusion weakens the impression of historic fact. Hence Shakespeare admits no History in Romantic Comedy and no Romantic story in History. A great poet of our own time has failed to perceive the validity of the artistic principle so clearly indicated in the practice of Shakespeare. The tragedy of *Becket* is not only a fine acting play; it is in many respects a very noble piece of work. Nevertheless it is not completely satisfactory, and principally, I think for this reason, that beside the tragic history of Becket Tennyson has placed the purely romantic story of Rosamund, with the result that, as final impression, we experience a sense of feebleness and incongruity.

With the exception of history, pure tragedy and, as we said at the beginning, comic matter of a pronouncedly satiric or aggressively didactic type, Shakespearian Comedy admits almost every variety of interest, provided it be in strict subordination to the main Romantic motive and story; and not only every variety of motive, but every variety of blend, so that passing from one Shakespearian Comedy to another is like turning a kaleidoscope,—a like unity within the same compass, but with ever shifting variety of charm and delight.

In the *Merchant of Venice* we have no fewer than three Romantic stories, each distinct in motive and charm, with a touch of low Comedy and more than a touch of interest approaching Tragedy; in *Much Ado*, in addition to scenes of inimitable low Comedy, we have a large admixture of what is called light Comedy, at first moving parallel to the Romantic story, but later becoming absorbed in it; in *Twelfth Night*, interwoven with the double-single Romantic story we meet Comedy of a more boisterous nature, involving however a serious character-interest. In *As You Like It* and *Cymbeline* the pastoral-sylvan charm adds to and sets off other Romantic interests. In *A Midsummer-Night's Dream* and *The Tempest*, Romance, true to ancient tradition, calls to its aid the fascination of the supernatural world, or such part of it as fits the lighter interest of Comedy; in the former play the elves and fairies of popular belief; in the second a more spiritual and delicate race born of the poet's imagination.

Further illustration would be superfluous. It is only needful to remark that whatever the exact quality or proportion of the distinctive elements, the result is almost always an impression of unity, a unity not determined, we may readily believe, by obedience to formulated rule, but governed by an extraordinarily just and delicate æsthetic sense, instinctively seizing on the fine contrasts and differences which combined produce harmony, instinctively avoiding the harsh contrasts and difference which produce in conjunction discord.

The admirable skill shown by Shakespeare in the amalgamation of plot and sub-plot in Comedy has become one of the common-places of criticism. I have only to observe that this quality in dramatic construction, whereby the separate parts are so blended and fused that each part is absolutely necessary to the other parts and to the whole, that no part can be removed without injury to the others and to the whole, must be regarded as an essential in any account of the substance of Shakespearian Comedy. A single, but extreme example will suffice. At first sight the Dogberry and Verges interest in *Much Ado About Nothing* might well appear—as it actually appeared to so great a critic as Coleridge—to be introduced solely for purposes of comic relief. Yet so far is this from being true that later criticism has had no difficulty in demonstrating that the removal of these preternaturally stupid officials would produce as a necessary consequence a complete collapse of the whole structure of the play.

We have only time to note, as another essential and distinguishing condition in the construction of Shakespeare's comedies, the skill displayed in the evolution of the action, from the masterly exposition, happily contrived so as to arrest immediate attention and strike exactly the right note of emotional appeal,—through the ingenious complication, protracted by what has been called the 'principle of alternation' so as to provide the measure of variety and relief sufficient to sustain interest, up to the resolution and reconciliation of the intricate knots and cross purposes in the concluding act.

The constructive qualities just treated, the fusion of separate plots and interests in an organic whole, the regular and natural evolution of dramatic matter, constitute, it will be observed, *Unity of Action*; not indeed Unity such as critics of the neo-classic school would be prepared to accept, but essential unity all the same. And it is worth observing that while Shakespeare notoriously rejects all that is merely arbitrary and conventional in the Aristotelian, or so-called Aristotelian doctrine of the Unities, he was far from rejecting the Unities altogether. Whatever is essential in them; whatever is of real and permanent value,

he accepts and in practice illustrates, adapting it to the conditions of Romantic drama. Unity of action he satisfies as we have seen. Unity of place he certainly does not observe; but this particular unity is neither justified by reason nor sanctioned by the authority of Aristotle. It seems simply to have been imposed on Aristotle by the critics of the Renaissance.

The Unity of Time, rather recorded by Aristotle as a practice than enunciated as a rule, Shakespeare actually does observe in his own fashion, and as far as Romantic conditions will permit. The general underlying principle he accepts, though, it must be allowed, he somewhat violently forces the obstinate Romantic material to acknowledge, or at least appear to acknowledge the rule.

I have no intention of entering upon an elaborate study of the difficult question of dramatic time in Shakespeare, or of instituting an examination of the so-called 'double-time' theory. It is enough for my purpose to assert (I dogmatise reluctantly; not from choice; but of necessity) that Shakespeare's plays—tragedies no less than comedies,—are constructed, I believe deliberately constructed, so as to convey the impression of unbroken continuity of action, which necessarily implies continuity in the treatment of time. Or, to approach the subject on the negative side, in a Shakespearian play the sequence of scene and scene and of act and act, is so adjusted that at no given point between one scene and another do we receive the impression of a break or suspension in the action at that particular point. And as the action cannot be suspended in the middle of a scene, the absence of impression of intervals between scene and scene amounts to an impression of continuity in the action, or in other words to Unity of Time.

Most assuredly, since the matter of the Romantic play is the protracted narrative and not the single episode or situation of classic drama, we receive during the course of the Romantic play impressions of an entirely different kind—which latter impressions if critically set beside the former involve irreconcilable inconsistency. Received however as impressions there is no conflict, as the inconsistency does not happen to be felt—and in drama, as Prof. Raleigh says somewhere, impression is everything. There are, I believe, in the whole range of the Shakespearian drama, only two plays in which continuity of action—Unity of time, as I have described it—is not scrupulously observed. They are *Henry V* and *The Winter's Tale*; and it so happens that in each of these exceptions Shakespeare, speaking directly to the audience through a chorus, actually announces the rule which in the particular instance he finds it convenient to break.

## VI.

We have now briefly to consider the substance of Shakespearian Comedy in relation to character. To enlarge on Shakespeare's pre-eminence in this province of creative art would be an impertinence in which I have no intention to indulge. I wish merely to touch on, or rather to revert to, a few points important to the study of character in Shakespeare.

First, character in Shakespeare should not be regarded as a separate or separable quality, apart from those constructive qualities with which hitherto we have been mainly concerned. Character in Shakespeare is inseparable from the story and from the dramatic treatment of action in the story. Not only is character in Shakespearian Comedy developed and revealed by means of the Romantic story, it requires as a necessary condition of development the blending of two or more stories. Remove, for example, the slender sub-plot of Lorenzo and Jessica from the *Merchant of Venice*, and then estimate the effect of the omission on Shylock, regarded as a character possessing human verisimilitude and claiming, in a certain degree, human sympathy. This, I am aware, is very stale criticism. Or attempt to study Portia the heroine of the casket-story in the absence of the bond-story, or Benedick and Beatrice without the Claudio-Hero plot, and what becomes of the characters ?

But the study of character in relation to story is not sufficient. One character must be regarded in relation to others, not merely on the obvious ground that character is manifested in action in and by which other persons are necessarily involved and affected, but because the impression we receive of a particular character is inevitably conditioned by the group of characters in which that character is placed—in other words, is the result of more or less conscious comparison and contrast. Once more, character, the crowning achievement of Shakespeare, has as basis and determining condition, extraordinary skill in the province of effective dramatic construction.

Again, character in Shakespeare is not independent of time-treatment, of the impression of continuity in the action. I can at present only throw this out as a suggestion, with two examples tending at least to confirm the suggestion. I ask first how it would fare with the character of Shakespeare's Moor, regarded in relation to any standard of probability or consistency, were the tragedy of *Othello* reconstructed on a basis of historic rather than of dramatic time ; that is to say if we dispensed with the impression of continuity. I leave the problem to be worked out by any one curious enough to attempt it, merely hazarding the conjecture that, if the resulting character preserve any degree of

consistency, he may resemble the barbarous Moor of Giraldo Cinthio, but will be singularly unlike the noble Moor of Shakespeare. Or, returning to Comedy, how will it fare with Bassanio, if, in defiance of the text, but avoiding an unfelt inconsistency in time-treatment, we suppose him to remain two months or so at Belmont before he 'comes to his election'? The answer in this case is very easy. We have merely to turn to Shakespeare's source, the Italian book *Il Pecorone*. In the Novella the hero who corresponds to Bassanio, amongst other failings which are not repeated in Shakespeare's hero is guilty of unpardonable selfishness and ingratitude. After his marriage, we are told, "he continued some time in this happy state, and never entertained a thought of poor Ansaldo who had given the bond to the Jew for ten thousand ducats." Nothing of this sort can be laid to Bassanio's charge; for Shakespeare, by a marked departure from his source, has contrived that Bassanio shall not forfeit his right to rank as hero of Romantic Comedy, but has only attained this end by rendering the action of the play continuous both before and after the fortunate choice is made.

Another consideration affecting character in Shakespearian Comedy is this. It is through character and delineation of character that Shakespeare has given to the Romantic story and the Romantic method and treatment a permanent value in art. The Romantic story in Comedy, as we have seen, has small relation to life. It not only contains improbability, it is in its essence improbable and even childish. But in Shakespeare, though the story remains in general childish enough, the characters as seen in action—which action, apart from the underlying situation, is in itself not very improbable—are consistently true to life. So that if we sought a definition of character in Shakespearian Comedy in relation to story, we might say that Shakespearian Comedy was a representation of action by normal individuals placed in situations altogether abnormal, but not recognised by them as such. Normal individuals, I say: though perhaps I should add, slightly idealised for the sake of verisimilitude. Or if that seem a paradox, let us say, with the data of actual experience so far heightened and modified as to convey a faithful impression of actuality, and to preclude the false impression which prosaic realism inevitably conveys. I call Shakespeare's treatment the higher realism, and for the present leave it there.

Now in this association of realism in character with the Romantic story and the Romantic setting, Shakespeare has again entered upon the heritage of Chaucer, but he has far outdistanced Chaucer's achievement.

In the *Canterbury Tales* we have realism of character in abundance. 'Here,' as Dryden puts it, 'is God's plenty.' We have also Romance in abundance, but the two elements are merely placed in juxtaposition; they are not fused. In the Prologue, the connecting links, and the comic tales we have character. In the Tales of the Knight, the Man of Law, the Clerk and the Squire we have Romance pure and simple, and so far these beautiful tales lack permanent value: they make a certain demand upon what Matthew Arnold calls a historic estimate. In Shakespeare, it is needless to assert, Romance and Realism are completely fused.

Lastly I have to touch on character in Shakespearian Comedy regarded from what is essentially an ethical standpoint. If Shakespearian Comedy is to be judged by an ethical standard at all—and in my humble view no art or artist can claim exemption from such trial—it must be in relation to character rather than to story, for the sufficient reason that the story is not seriously put forward as an image of real life, whereas the characters are plainly intended to represent actual life, and to hold the mirror up to nature. The ethical question is therefore: Given verisimilitude, which no one denies, granting moreover, which few can doubt, that the types and individuals are represented with such power as to inspire in a high degree emotions of liking and admiration or the reverse, what sort of life is here represented? for what types and kinds of persons is sympathy and admiration sought and obtained? Questions with an ethical bearing more precise and definite than this are, I think, in reference to Romantic Comedy, for the most part irrelevant and inadmissible. This question I consider wholly reasonable and legitimate. I shall not attempt a formal answer. The question indeed answers itself. The men and women in Shakespeare's comedies are of varying degrees of moral worth and worthlessness, and from none, it may be truly said, is some measure of sympathy withheld; but the characters for whom most sympathy is demanded are, on the moral ground, essentially noble, evenly balanced and proportioned types. The confessed end of Shakespearian Comedy was neither to instruct nor improve, but simply to delight—as indeed, with a difference, was the end of Shakespearian Tragedy; and Shakespearian Comedy, so far as the pleasure it affords arises from the contemplation of character rather than from curiosity in the unravelling of the story, or from other sources, pleases, I think, chiefly because, through character shown in action, there is presented to us a picture in little of life, which satisfies in equally maintained proportion the æsthetic and the ethical sense, since the thing which appeals to us as gracious and beautiful on the æsthetic

side has grace and beauty on the moral side as well. Shakespearian Comedy has thus so far a value in ethics in that through the manifestation of grace and beauty in character we are led to admire and sympathise rightly ; and we do so easily, there being no conflict between ethical and æsthetic standards.

Further, because on the Romantic side Shakespearian Comedy affords examples of this grace and beauty in lavish abundance, and because on the side of pure Comedy the humour of Shakespeare in its attitude to life is wholly genial, tolerant and kindly—for in humour also Shakespeare derives from and surpasses Chaucer—the final impression, ethically considered, is a sane and robust optimism. Life is presented in the mirror of art in such form and colour as emotionally to exalt and exhilarate, and through this heightening of the feelings to produce a certain satisfaction, a peculiar delight.

I do not maintain that Shakespeare's is the only way in Comedy, or that life may not legitimately be presented in Comic Art under other aspects, so as to produce another impression. I merely contend that in Romantic Comedy Shakespeare's is the only right way ; that Shakespeare by reason of his sure ethical instinct, his unerring sense of what is and what is not on the moral side worthy of sympathy and admiration, has succeeded in this way as no one before or after him has succeeded ; that such success is the crowning perfection of Shakespearian Comedy, to which, more than to any other cause, it owes its unique delightfulness and its abiding charm.

MARK HUNTER.

## THE BAILLIE DISASTER.

### II. IN RESEARCH.

THE following notes on this subject are based on local traditions gathered in the neighbourhood of the battlefield, also from publications of the times in which the Disaster occurred. They are interesting and valuable as they often confirm written history where they agree with it and when they differ often supplement it.

The first note will be on *the actual site of the Disaster*—So far I have been unable to obtain any military map of the Baillie Disaster. The only one I have been able to find is one in Meadows Taylor's History. The large map attached to the first section of this article is the result of personal observation of the country of and around the battlefield and in accordance with the most authentic histories and reliable traditions.

Comparing this map with that of Meadows Taylor, it will be noticed that the two maps differ as to (1) site of Baillie's last stand (2) position of Hyder's army before Conjeeveram. With regard to the one, I have carefully studied the battlefield, and accounts of the battle on the 10th September, measured the distances and collected local tradition and I find the actual site of Baillie's last stand to be a few hundred yards to the south-west of Pillalore village: this is in accordance with Sir Hector Munro's despatches; the accounts given by survivors; and the most accurate and reliable given by historians. It is certain that Baillie marched first along the Tripasore-Coverpauk Road, or near it, for  $4\frac{1}{2}$  to 5 miles, then halted. The first 2 or  $2\frac{1}{4}$  miles was marched while partially surrounded! On reaching a spot 2 miles from the place of his halt, a village (Pillalore) was noticed about  $\frac{1}{4}$  mile to his left, to which a cart track led. Baillie's demoralized and quickly diminishing army attempted to reach this village, but finding themselves heavily attacked on their right flank, turned 'half right' and struggled on about  $\frac{1}{4}$  mile to the rising ground to the south-west of Pillalore and there the last stand was made. I found both from tradition and from several written accounts that an idea prevailed that the last stand was made at the place of Baillie's fatal halt, and I consider the mistake has arisen from the fact that the "Disaster" really commenced on *the march towards Pillalore*. The actual "last stand" was made when the army was dispersed

and for the most part killed. Again most of the relics of the battle are found on the plain north-west of Pillalore probably because most of the fighting took place there, and most of the troops were killed there. The undoubted truth of the tradition that several escaped from the shattered square and climbed the Pagoda at Pillalore supports still further this assertion. A quantity of relics too have been found on this spot on the rising ground and a tank near is said to contain many such relics still. This tank or well is said to dry up for a few days each year, and then it is explored for anything which may have drained through from the rising ground which is just above the well. I have been asked by villagers to excavate this tank in the dry period, but have not been able to do so up to date. The encircling movements of Hyder's army included ambushes to the west and south of Pillalore and would have been little use if Baillie had been held up finally to the north-west of the village! He was, in fact, driven by Tippu's force on to that of Hyder which had arrived, in the early morning of the 10th, on the east and south-west of Pillalore. (*Vide Map*)

Once again, all accounts of the second battle of Pillalore—fought by Sir Eyre Coote against Hyder Ali on 27th August 1781, a year exactly to the day (Mahomedan or Hindu Kalendar) on which Baillie's Disaster took place—state that Coote's army had to march *over the bones* of Baillie's troops to meet the foe! Coote marched north-east from Arcot and would in this case only have to cross the site of the actual disaster to meet Hyder who was occupying Pillalore! On the whole, therefore, the site as given in the large map seems to be the most correct.

*Hyder's position at Conjeeveram.*—Hyder had perfectly free play at Conjeeveram, and from all accounts he placed his main army, marched from Musarwaukam, directly between Munro's army and across the line of Baillie's likely approach. This is the general opinion and it is supported by tradition and several accounts.

*Fletcher's Route to join Baillie.*—No accurate account has survived of Fletcher's march; all extant accounts, though, of the incidents of this campaign record that Fletcher marched on a circuitous line over wet paddy land and covered many miles so as to escape Hyder. The line given in the map is most in accordance with accounts and tradition.

*The Powder Bags.*—This story of loose powder being carried by Fletcher's troops is given in several accounts and in one such the blowing up of Baillie's tumbrils is attributed to the fact that "some loose powder in bags which had not been put in the tumbrils" was ignited by fiery rockets. The connection is suggestive, and can be used I think to explain the cause of the Disaster.

*The Signal of surrender.*—Some controversy existed at the time of the Disaster over the question of ‘who gave the signal of surrender.’ It is generally stated that Colonel Baillie hoisted the white flag in the shape of his handkerchief. Another account in Gleig’s “Life of Sir Thomas Munro” says that Colonel Fletcher tied his handkerchief to his sword-point and hoisted it aloft; “his arm being shot through and an Indian horseman giving him a slash across the belly, his bowels fell out and he dropped from his horse.” Baillie may have rehoisted the flag. A striking and curious incident undoubtedly happened after the surrender which is vouched for by the inhabitants of Pillalore still. Some of Baillie’s troops escaping from the shattered square climbed the village pagoda—a tower still standing—and from there kept up a fire (after the surrender) on Hyder’s troops! This probably accounts for the breach of the surrender and the wanton massacre of Baillie’s men, and is moreover, as a cause, on a par with the secreting of the treasure at Bednore by Matthew’s men after the surrender of that fort, and also the action of the drunken sailor of the Black Hole incident who is said to have brought about that tragedy! Hyder undoubtedly was vengeful and cruel, as Tippu also was, and was capable of the outrage of massacring defenceless prisoners, but facts of history should be recorded and Hyder’s plea that the surrendered troops kept up firing after the white flag was hoisted may have had something to support it. The Pagoda retains marks of bullets which are still to be found embedded in it and affords another proof that the ‘Last stand’ was made adjacent to it.

*Hyder’s march to Damal.*—For some few hours after the surrender Hyder’s tent was pitched in a tope close to the Pagoda. The spot is still pointed out by the villagers of Pillalore. Hyder then marched to Damal, 6 or 7 miles away, and there he remained a few days. At Damal there appear no traditions of his barbarous Durbar so often alluded to! It is possible that the acts of savagery accredited to him took place at Pillalore.

*Relics of the Battle*—It is possible even now to collect cannon and culverin balls from the villagers of Pillalore and Perambaukam. The Mysorean ammunition in the shape of ball is of wrought iron—that of the English iron (for cannon balls) and lead for musket bullets. ‘Six-pounder’ shot are easy to obtain and were probably fired from Baillie’s ‘six pounders.’ Buttons off soldiers’ uniforms and brass badges were common as relics a little while ago: while Flemish pottery belonging to Baillie’s officers’ camp equipment can be found, in broken pieces, around the village if the earth is excavated. Baillie’s guns cannot be traced but Munro’s heavy artillery, said to be sunk in Conjeeveram big temple

tank, could be traced in parts in the shape of the gun carriage wheels used for pressing oil seed !! One wheel is said to be so used still in the large temple of Conjeeveram. Monuments erected to two officers who fell at the second battle of Pillalore (referred to above) are still to be seen in an excellent state of preservation. For some years after the battle it is said by the villagers, sovereigns were picked up so frequently that a tradition grew up that they were originally fired out of the English soldiers' muskets when their supply of bullets failed !! Colonel Baillie himself was captured in a state of exhaustion from wounds, anxiety and fatigue, and treated with great brutality by Hyder and neglect by Tippu, and finally reached Seringapatam where he lingered nearly two years and then was either poisoned or killed by neglect and starvation. No one appears to have seen much of him there as he was kept apart from the other prisoners. Where his bones lie no one knows. A monument to his memory was erected by his nephew and it stands more for the sufferings of himself and his unhappy fellow prisoners than to perpetuate his fame.

EDWARD BULL.

N.B.—Should anyone interested in this incident wish to visit the scene of the Disaster, he should alight at the station of Pallur 9 miles from Arkonam Junction on the S.I.R., and from there the distance to Pillalore village is only  $2\frac{1}{4}$  miles.

## SCHOOLS FOR THE POOR IN MADRAS.

“‘ That a man should be capable of knowledge and remain ignorant,’ said Carlyle, ‘ that to me is tragedy.’ Yes, to the great reformer it was tragedy. To the ‘ employed’ and injured child it is tragedy; but to the nation at large it may soon become clearer that the destruction of any of its children cannot, even from a national standpoint, be regarded as other than a tragedy.”—*Margaret MacMillan.*

ILLITERACY is at the root of many of the evils which to-day in India afflict the lower ranks of society. If once the problem of illiteracy is solved, national life will assume a higher tone. This problem is too colossal to be grappled by individuals or by societies: it is one for the state. Indeed, it is primarily the duty of the state to provide a system of education for the masses. But in this, as in certain other matters, we cannot well afford to wait for Government action. It is with this object that organised attempts are being made in Madras to open elementary schools in localities where they are likely to be of use to the poor.

The Poor Schools Society is the most important of the organisations in Madras which have taken up this work. It collects funds and manages its schools through a General Executive Committee. But each school has a local committee consisting of gentlemen resident in the locality, whose duty it is to be in touch with the school and supervise its working. The teachers are all of them qualified and trained men. In the case of night schools, they are generally teachers working in the day-time in Government or private schools in the City. The Society has now under its control 22 schools—21 night schools and a day school.

Owing to the large number of Corporation Model Schools already working in the city, it is unnecessary in many localities to open day schools. But there is at present no limit to the need for night schools. They are intended for both young and old people who earn their living during the course of the day and are therefore unable to take advantage of day schools. Boys studying in day schools are not admitted into the Society’s night schools. A specially prepared time-table is followed in all the schools. English, Arithmetic, religious instruction, music and the vernaculars (Tamil and Telugu) are the subjects generally taught. The school-hours are from 7 to 9 p.m. The classes are held in the

Corporation Model Schools, wherever available, but in some cases, the society has had to erect special sheds. A Teachers' Association enables the teaching staff of the various schools to keep in close touch with one another. An experienced Headmaster of a High School (Mr. V. Raghavachariar, M. A., L. T.) acts as the Hon. Superintendent of the Society's schools and helps greatly in efficiently maintaining them.

It would be absurd to describe our school-instruction as cultural education. Real education is impossible in the circumstances. The Society's schools merely seek to teach the three R's among their pupils and, opening their minds, to leave them at the threshold of knowledge to enter or not as their industry and earnestness may decide. But the Society has worked long enough to realise that boys who have stayed for two or three years in its schools show considerable progress. In many cases, the instruction they have received at its schools have enabled them to rise in their "professions." Compositors have become able to do work of a higher kind and earn better wages. Boys without work have been able to obtain work in printing presses or as office-boys. A considerable number have been able, after a few months' attendance in the schools, to get work as postmen. In any case, it cannot be denied that a man who has even a bare knowledge of the three R's has a considerable advantage over one who has not.

The Society seeks also to influence the character of the boys who come under its control. Religious instruction and *Bhajana* parties are an essential feature of the schools. The school work begins daily with prayers, and the boys are trained to sing hymns and songs to God. Periodical lectures on such subjects as sanitation, hygiene, clean living, are arranged. Scouting has also been introduced in a modified form so as to suit their actual requirements. The value of scouting cannot be exaggerated. The organisation of scout patrols has brought boys together and has enabled them to cultivate habits which are sure to stand them in good stead in later life. It has set for them a higher moral standard and emphasised the need for mutual help and service. Vocational training forms a part of the scout work. Boys, whatever their profession, are taught useful handicrafts, such as basket-making, weaving, carpentry, engraving. It is hoped that separate vocational schools will very soon be started to enable boys to earn a living. Reading and writing does not place one in a position to make a living; but if that is coupled with sound vocational training, real and substantial service will be done for the un-employed poor.

One of our great difficulties is to discover ways and means to attract boys to the night schools. There is no need to attract those

who are eager to learn or who are made to learn by their parents. But the generality of boys are at first indifferent, and therefore an attempt has to be made to capture them. The *Bhajana* parties and the scout classes serve in a way as inducements. But unless the school-course is so arranged as to make the boy feel that he has an opportunity both to learn and enjoy himself, we cannot succeed in appealing to the majority of boys. Unvaried book instruction is always distasteful. A suitable play-ground must be provided, and they must be encouraged to spend part of their evenings in healthy open-air games and exercises. The time-table must provide for classes for telling stories and for singing songs and ballads. Boys must be taken out on excursions as often as possible. And lastly, it must not be forgotten that they should be encouraged to celebrate festivals in their school-premises.

No one can fail to notice that many of the boys who attend the schools show clearly that they have not had enough to eat. A good deal must be spent in giving them treats. The school authorities must take care to show that they take an interest in the general welfare of the boys apart from the instruction, give them medical aid when necessary, and also, as far as possible, secure for them suitable employment.

When once this kind of social work is started, the scope for its extension is seen to be unlimited. The possibilities are infinite. The Society is ambitious. The educational and scholastic side of its activities must, we believe, diminish when the State takes mass education into its own hands, as it must very soon. But its activities in wider social service must, in course of time, be more and more in evidence. Men and money—more of each, willing workers and voluntary contributions are needed. The public conscience is already awakened and more men are coming forward daily for the work. Money too is coming in more plentifully than before. We hope and wait for the time when we can work unhampered by lack of funds and workers, and, in the meantime, gird ourselves up to the work before us.

T. E. VARADACHARI.

## HISTORY OF THE THEORY OF ELECTROLYTIC DISSOCIATION \*

### II.

THIS theory of Grotthus satisfied the then scientific world as it offered explanation for all facts which were known about electrolysis at the time. As the science developed, new facts were brought to light which could not be reconciled with it. According to this theory, the molecules must be split up by the current before it can effect electrolysis; and the splitting cannot take place until the electromotive force is sufficiently great to overcome the affinity between the two components of the given compound. Hence, when the electromotive force is less than that particular minimum no currents will pass and when it attains the limit, a very strong current suddenly exists. But as a matter of fact, under suitable conditions of experiment, an electric current passes through a solution even when the electromotive force is extremely small. For example, such an electric current will pass through a solution of silver nitrate between silver electrodes, causing silver to dissolve at the anode and to deposit upon the cathode. So to say, the entire action consists merely in the transference of silver from one electrode to the other. It follows then that in the case of electrolytic conduction Ohm's law holds for all differences of potential, from the smallest upward.

Clausius (1822-1888) was the first to show that Grotthus' theory of electrolysis was untenable. He declared (1857) "every assumption to be inadmissible which requires the natural condition of a solution of an electrolyte to be one of equilibrium in which every positive ion is firmly combined with its negative ion, and which, at the same time, requires the action of a definite force in order to change this condition of equilibrium into another differing from it only in that some of the positive ions have combined with other negative ions than those with which they were formerly combined. Every such assumption is in contradiction to Ohm's Law."

A theory, as to the condition of things in solution, was proposed by Williamson (1824-1904) in 1851 as an outcome of his work on the

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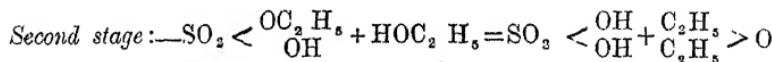
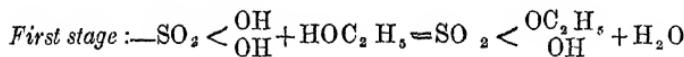
\* The following corrections are made by the author in the section of this article appearing in the July issue—

[1] Page 169 line 22. For "potash and alum" read "potash-alum."

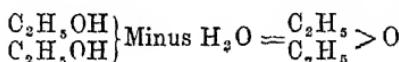
[2] Page 170 line 7. For "positive" read "negative."

[3] Page 170 line 8. For "negative" read "positive."

*constant etherification process* with the same and different alcohols. The reaction takes place in two stages as represented by



In the first stage ( $\text{OH}$ ) of  $\text{H}_2\text{SO}_4$  is replaced by ( $\text{OC}_2\text{H}_5$ ) with the elimination of ( $\text{H}_2\text{O}$ ); and in the second, ( $\text{OC}_2\text{H}_5$ ) of  $\text{C}_2\text{H}_5\text{HSO}_4$  is replaced by ( $\text{OH}$ ) of  $\text{C}_2\text{H}_5\text{OH}$ . So to say, the reaction of the first stage is almost exactly reversed in the second, the net result being, that a water molecule is removed from two molecules of alcohol.



From this, he concluded "that in an aggregate of the molecules of a compound, a constant interchange between the elements contained in them is taking place." He concluded his paper by saying: "In recent years, chemists have added to the atomic theory an uncertain and, as I believe, an unsubstantiated hypothesis, that atoms are in a condition of rest. I reject this hypothesis and found my views on the broader basis, *the movement of the atoms* composing the molecules."

Clausius (1822-1888) criticised the views of Williamson as being too broad and chose the *via media* by assuming that the positive and negative parts of a molecule are in a state of vibration. These charged parts, left momentarily free, soon come into the sphere of influence of oppositely charged parts of other molecules. Thus there takes place in a solution a constant exchange between the positive and negative parts of the molecules of the dissolved electrolyte. When an electric current is passed through the electrolyte, the momentarily free parts will not move about with entire irregularity, as before, in all directions to re-form molecules. The current *directs the positive parts to move in the direction of the negative electrode and the negative towards the positive, and this directing influence of the current facilitates the breaking of more whole molecules into parts.* On this assumption one may easily see that a weak current will effect electrolysis but the directing influence will be proportional to the strength of the current.

At about the same time that Clausius advanced his theory, Hittorf (1824-1914) began his classic experiments on the migration of ions. He studied the effect of concentration, temperature and strength of current on the relative velocities of ions.

Later, Kohlrausch (1840-1910) commenced experiments upon the electrical conductivity of solutions.

As we shall see later, the works of these investigators paved the way for the theory of electrolytic dissociation (1887) of Arrhenius.

Even in remote antiquity when the first elementary ideas of chemistry were evolved, we find the doctrine that fluids are of exceptional value. The early alchemists paid great importance to colour and conceived that the dissolved state is most favourable for chemical operations. In the words of the alchemists : "Corpora non agunt nisi soluta," (Substances do not interact unless they are dissolved.) and "Salia non agunt nisi dissoluta, nec agunt si dissoluta nimis" (salts do not react unless they are dissolved, neither do they react (precipitate?) if too much diluted). The same is expressed by Issac Hollandus, early in the fifteenth century, in the clear form : "The philosophers have followed the direction given by Nature and at first transformed everything to water (dissolved it) before they used them in the art of Chemistry." In order to dissolve substances, it is necessary to have a good solvent and Paracelsus conceived of one ideal solvent *alcahest*, capable of dissolving anything.

Gay-Lussac paid special attention to the solutions of salts, etc., and reached some conclusions which are apparently modern. In his memoir (1839) on *Considerations sur les forces Chimiques* he writes : "As the effects of affinity do not change with temperature, whereas dissolution (solubility) is in a high degree dependent upon it, it is very difficult to avoid the assumption that in dissolution as well as in evaporation, the product is essentially limited, at a given temperature, by the volume of the solvent. They are separated from this, just as gaseous molecules are precipitated by a lowering of temperature . . . . Dissolution is therefore in a high degree connected with evaporation, namely in this respect, that both of them depend on the temperature and are subject to its variations. Hence they ought to show if not a complete identity in their effects, at least a great analogy."

We shall see later, that Van't Hoff developed, forty-five years later, this idea of the analogy between substances in the dissolved condition and in the gaseous state.

In the same memoir, Gay-Lussac maintained that when solutions of two salts of different bases with different acids are mixed, all the four possible salts are formed simultaneously. If one of the four salts be sparingly soluble, the solution becomes supersaturated with regard to that particular salt and precipitation results, and in the same manner, the volatility of one of the reaction products may exert its effect. Berthollet had maintained that very sparingly soluble products are formed by the force of cohesion—predisposing affinity—which determined

their formation in the solution. Gay-Lussac enunciated his *principle of equipollency* according to which, when two salts are mixed in equivalent quantities, the two other possible salts also, after a short time, exist in the same quantity *i.e.*, one-half equivalent of each. Eleven years later came in the work of Williamson and in 1857 that of Clausius already described. The chemists were, of course, reluctant to accept that in solution a substance is decomposed.

In 1870, from thermodynamical considerations, Guldberg deduced the connection between the lowerings of the vapour-tension and of the freezing point of solutions. Being unaware of this theoretical deduction, Raoult (1834-1901) established the same fact by experimental methods (1878)—that there was proportionality between the two lowerings and later on between these lowerings and the rise in the boiling-point produced by dissolving a non-volatile substance in it. As he himself relates, the lowering of vapour-pressure formed the primary subject of study and the determinations of the freezing points were taken up as an indirect method of fixing the former. Researches led

him to conclude that the relative lowering of pressure  $\frac{f-f'}{f}$ , where  $f$ =pressure of pure solvent and  $f'$ =that of the solution, is independent of temperature and is equal to  $\frac{n}{N+n}$  where  $n$ =number of molecules of the solute and  $N$ =that of the solvent.

More generally, he arrived at the conclusion that *the lowering of the vapour-pressure or of the freezing point of a solvent caused by a dissolved substance is directly proportional to its concentration. The lowering in each case, for a given solvent is the same for equimolar solutions of all substances.* These laws made possible a considerable increase in the knowledge of the constitution of matter, especially in regard to the molecular weights of substances in solution.

As the origin of the theory of electrolytic dissociation is closely associated with it, we must now trace the osmotic investigations. The phenomena of *endosmosis* and *exosmosis*—diffusion of a liquid through a membrane in and out—had been known as early as 1748 by the Abbé Nollet and investigators were attracted to that process of *osmosis* on account of its physiological interest. Between 1826 and 1846, Dutrochet and Vierordt found that when a salt solution is separated from water by means of a pig's bladder, water diffused through the membrane more rapidly than the salt solution *i.e.* the level of the solution rose. This hydrostatic pressure was called *osmotic pressure*, since it was brought about by *osmosis*. They found quantitatively,

that the rates of osmosis, of pure water and of salt solution, depend on the nature of the salt, on the concentration of the solution and on the nature of the membrane employed.

The influence of membranes was utilized by Graham (1805-1869) for the separation of crystalloids from colloids by the process of *dialysis* (1854). Here, the rate of diffusion of a colloid vanishes or becomes vanishingly small, while water passes through the membrane.

Attracted by Graham's work, Tranhe (1867) tried to prepare artificial membranes by precipitation, which membranes were permeable to water but impermeable even to the membrane-forming and other substances in solution. Among the large number he prepared, is the precipitate of copper-ferrocyanide which was found to be the most satisfactory semipermeable membrane for quantitative determinations.

These membranes were too fragile to withstand the pressure produced and thence, to overcome this practical difficulty, Pfeiffer deposited a membrane of copper-ferrocyanide on the walls of a porous earthenware pot. This device made the measurements of *osmotic pressure* amounting to several atmospheres possible and his classical experiment of the determination of cane-sugar is well known. It must be noted here that Pfeffer's experiments (1877) were purely from the standpoint of vegetable physiology and he never for a moment dreamt that his work was to mark a new era in physical chemistry, mostly through the observations of Van't Hoff, (1852-1911) as we shall see presently.

In the words of Van't Hoff himself: "In the course of an investigation which had, as its chief object, a knowledge of the laws of chemical equilibrium in solutions, it became gradually apparent that there was a profound analogy, indeed almost an identity, between them and gases, more especially in physical properties, provided that for the ordinary pressure of gases one substitutes, in the case of solutions, the so-called osmotic pressure."

As we know already Gay-Lussac recognized the analogy between gases and substances in dilute solution and Van't Hoff took up this idea left unrecognized for about ten years.

While his mind was engaged with this problem, he was made acquainted, by de Vries, with the osmotic pressure experiments of Pfeffer and he recognized, as Tranhe had recognised from Graham's experiments, that such determinations of osmotic pressure with semipermeable membranes afford a method by which water-attraction of the solute can be measured. He then used these determinations for his deductions of the quantitative laws of dilute solutions.

The analogy between dilute solutions and gases was brought out by the experimental work of de Vries, who showed that equal changes in concentration of solutions exert the same influence on the osmotic pressure; and of Donders and Hamhunger, who showed that the temperature of coefficients of osmotic pressure for different solutions of the same concentration is the same. The *Principle of Soret*, applied to dilute solutions, gave a strong experimental support to the applicability of the laws of Boyle and Gay-Lussac to dilute solutions.

From the experimental data of Pfeffer, he deduced the all-important generalization: that *the osmotic pressure of a solution is equal to the pressure which the dissolved substance would exercise in the gaseous state, if it occupied a volume equal to the volume of the solution*—the law of Avogadro is applicable to dilute solutions.

Naturally, Van't Hoff attempted to furnish a general expression for these three laws, such as the well-known gas-equation :

$$PV = RT$$

He compared the gas-constant with that obtained for sugar solutions from Pfeffer's data and found to his surprise that they were both identical. At first he looked upon this identity as a mere coincidence, but further consideration showed it to be fundamental and then molecular weights of dissolved substances could be determined on the same theoretical grounds as those of gases.

"Raoult had, in the meantime, shown empirically how molecular weights might be determined from the lowering of the freezing point and Van't Hoff was in a position to give the theoretical justification of this method, by deducing thermodynamically from Avogadro's law and the properties of the solvents, the quantitative rules for the lowering of vapour tension, the depression of the freezing point and the elevation of the boiling point of solutions." He was the first to show that the laws of osmotic pressure are analogous to those, which, at first sight, do not seem to be related to it.

"That the vapour pressure and the freezing point bear an intimate relation to the osmotic pressure may be concluded from the fact that a vacuum or ice may be regarded as a semipermeable membrane. Thus if we have a solution and solvent in two beakers standing side by side, and above them the saturated vapour the solvent generally possesses a higher vapour pressure than the solution and therefore distils over to the solution. If the solute is not vaporizable, then over both the liquids is a semipermeable membrane, through which the solvent may pass but not the solute."

" In the same manner figure to ourselves a vessel containing pure water and an aqueous solution, separated by a wall of ice. We may now keep this vessel at a constant temperature, lying somewhere between the freezing point of the water and that of the solution (lower). Then water freezes out on the solvent side of the ice wall which melts on the solution side, the net result being water diffuses into the solution. The temperature etc. may be so regulated that just as much ice freezes out on one side as melts on the other. In this case also ice acts as a semipermeable membrane letting through water but not the dissolved solute."

It must be noted that, from the first, he pointed out that all these relations are strictly applicable to only very dilute solutions, *ideal solutions*, as he called them. He says: " It is not even necessary to choose osmotic pressure as the starting point (of these relations); the whole might be deduced as readily from Henry's law or from Raoult's law. Only osmotic pressure is a very simple and handy expression for the whole behaviour and its physical meaning is very readily stated and grasped thus: If a substance in a state of dilution exists in surroundings into which it can expand by diffusion, then, at a given temperature the pressure which will prevent this diffusion is dependent only on the number of dissolved molecules and not on the nature of the medium."

While the osmotic pressure of solutions of compounds like cane-sugar conforms to the gas laws, he found that, for compounds—acids, bases and salts—the osmotic constant is not equal to the gas constant R. With his customary skill in handling such difficulties, he wrote the expression in the form  $PV=i RT$  using a factor  $i$ ,—known as the *Van't Hoff i*—as the measure of the abnormality of the substance. The work of Arrhenius supplied two years later the explanation of the abnormality in the case of electrolytes.

T. S. NATRAJAN.

(*To be continued* )

## CAN WE STILL BELIEVE ?

MANY a student of the present day is puzzled with regard to religion. The methods of education which have come from the West have taught him that no statement is to be accepted simply because it has been made; every theory is to be tested by facts. If the facts disprove the theory, the theory must be abandoned, and a new one fashioned on the basis of the facts. In the investigations of "science" observation and experiment are decisive; in historical research authorities have to be compared and weighed; nothing is to be accepted without question. The prevalent opinion that religion must be excluded from the curriculum of our colleges is perhaps largely due to the belief that it is not a proper subject for investigation on these lines. On the one side stands the religious preceptor, his authority derived from the traditions of the past, and announces as impious the investigator who would endeavour to apply to his pronouncements the method of the set square and the crucible: on the other sits the scoffer, who declares that under these methods religion would stand condemned or even be sublimated. Between the two, a large number of educated men have agreed to consign religion to a limbo in which the mind does not function and reason, in some way, submits to a contrary principle which it with great inaccuracy names "faith." Yet many of us know that there is something in religion. We have felt its power. We are sure that it ought not to be unreasonable; that it need not be unreasonable; that, if we properly understood it, it is not unreasonable. Can it be shewn to be reasonable? Can we take the facts of religion and investigate them in some such way as scientific men investigate the facts of the material and intellectual universe, and discover principles which are proved by evidence and upon which we may confidently base our hopes and actions? This is what is meant by the title of Dr Macintosh's book, *Theology as an Empirical Science*\*—a theory, that is, which is based upon and tested and established by the ascertained facts of religious life and experience.

The author's contention is not that theology is at present an empirical science, but that it is not impossible for it to come under that

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\* *Theology as an Empirical Science*. By D. C. Macintosh, Ph. D., Dwight Professor of Theology in Yale University. London, Allen and Unwin.

heading ; and that unless it does so it will forfeit all claim to the attention of thoughtful men. Human thought in the physical, mental, and social spheres has subjected itself to the inductive method. Religion has hesitated to do so, and the inevitable result has been that men of education, in the modern sense, have rejected it, or have permitted themselves the debasing indulgence of a formal adherence to practices and professions which their reason discredited.

“Dogmatic theology, as ‘queen of the sciences,’ was a despotic monarch. She undertook to prescribe for all the others first principles and limits beyond which they must not presume to go. All went smoothly enough so long as the sciences—if such we may call their first crude beginnings—were subservient. The rule of theology was a benevolent despotism. But as soon as the developing sciences began to show a spirit of independence and to appeal more fearlessly to experience for themselves, theology began to rule them with a rod of iron ; some of them, indeed, beginning to be openly insubordinate, she would have dashed in pieces as a potter’s vessel. But the sciences gathered strength and united to dethrone the tyrant, dogmatic theology, and by this time she has received at their hands double for all her sins. And yet their anger is not turned away, but their hand is stretched out still. Amongst the empirical sciences theology can find none so poor as to recognize her, much less do her reverence. Moreover even the world at large, including hosts of persons who still think of themselves as religious, is coming to share in the contempt of the scientists for theology. What is the ultimate meaning of this development ? Was Comte right after all, and is theology destined soon to disappear before the steadily encroaching advance of the positive sciences ? ”

The modern world is rejecting the ancient method of theology—that of tradition. It has not yet made up its mind as to what is to be substituted for it. The rationalists would believe nothing except what could be established by proof: they ruled out the whole world of religious experience. All knowledge is remodelling itself upon the basis, not of what the ancients have bequeathed to us, nor of what can be logically proved, but of what actually occurs in the world of life. “That which we have heard, that which we have seen with our eyes, that which we beheld, and our hands handled” is the foundation of our knowledge. It must be so in religion also, if religion is to continue a vital or even a non-negligible element in the life of intelligent men.

It is not to be said that no efforts have been made in the direction of applying the empirical method to theology. The mystical school is discredited by its doctrine of the illusoriness of the physical universe and the individual self—a doctrine which is held only as a philosophical creed, never in the practicalities of every-day life. Schleiermacher takes as his foundation the normal religious feeling of the members of a religious group, and makes this the rule of faith for the whole community. This gives no universal statement of essential truth, and opens the way to rival communities professing rival experiences, each claiming supremacy for its own. Just so Ritschl's emphasis on "religious value-judgments" gives us information about man rather than leads us to ascertain truth about God. What we want to know is that our judgments are in accord with reality. And pragmatism, which holds that religious truth justifies itself as true by its effects in maintaining such morality as is essential to the highest social well-being, stands to scientific theology in the same relation as that in which common-sense stands to science in other realms.

The problem concerns itself with three main questions: "(1) Is there *religious perception*, or something in the religious realm corresponding to perception, *viz.* cognition of the divine as revealed within the field of human experience? (2) Is it possible to formulate, on the basis of the data made available in religious experience, *theological laws*, or generalizations as to what the divine Being does on the fulfilment of certain discoverable conditions? (3) Can *theological theory* be constructed in a scientific manner upon the basis of these laws?"

It is proposed that scientific theology, like other inductive sciences, should begin with a minimum definition of the object which it desires to investigate; and that, to begin with, God may be defined as "the ultimate object of religious dependence" or "the source of religious deliverance." The only postulates which can be admitted are such as are experimentally observable and certain. It will thus lay under contribution the assumptions and established conclusions of other empirical sciences, especially of the history and psychology of religion, and whatever can be certainly affirmed with respect to such matters as human free agency, a future life, and moral evil. In all these investigations we must leave out of count all that is merely dogmatically asserted or theoretically conceived. The presupposition *sine qua non* is that God really exists—which, to the ordinary theological investigator, is already a matter of experiential certainty. Otherwise he must adopt it as a working hypothesis, to be established or disproved by his further

investigations. It is to be remembered also that a definite assertion that God does not exist is as dogmatic as anything which can be advanced on the other side. Because one man is ignorant, it does not follow that every man is ignorant.

It is necessary, further, that some test should be discovered by means of which we may be able to determine what is really to be attributed to divine working. Not all that is called divine revelation is in reality so to be described: neither can we beg the question by saying that there is no such thing as divine revelation. It is important to observe that, while the author writes as a Christian, and while to him personally "Christianity" is synonymous with "religion," he has by no means lost sight of those who view the question from other standpoints.

"It ought to be readily evident that the adoption of an objectively scientific method in theology will mean that religions other than the Christian are virtually invited to supply such data as their experiences afford, as material for theological science. Genuine empirical values will be fairly dealt with; scientific method will guarantee that. Nor should the Christian object to such a procedure, as he might with good reason to a merely eclectic syncretism of the beliefs or theories of other religions with those of his own."

We may add that no Christian who has been brought into sympathetic contact with people of other religions is likely to resist the application to the records and institutions of his own religion of whatever canons of criticism he has thought it necessary to apply to theirs. The easy admission that "all religions contain truth" is of comparatively little service. Our aim is to discover what and where are those elements of truth.

Beyond considering what are the signs which in experience follow real contact with divine influence, we have to go further, and discover what are the laws of divine working. Just as in natural science we rest our enquiries upon the principle of the "uniformity of nature," or else all our calculations are liable to be overthrown, so in the scientific study of theology we must assume, until we are in a position to establish it, the principle of the "dependableness of God." If God is erratic, or if He is so superior to law as that in no given combination of circumstances can His mode of action be forecasted, then our quest is a hopeless one. We shall have to investigate the laws which govern answers to prayer. Is prayer effective because, for example, it is expressed in certain forms of words rather than in certain other forms? or because it uses one particular name of God rather than another, or

associates itself with the person of one mediator rather than another ? Just so we must enquire into the circumstances which must combine in order to result in moral reformation, in religious enlightenment, in "salvation," and their attendant benefits to the individual and to society. If these laws of divine working can be ascertained from the experience of religious men, they will enable us to obtain fresh knowledge of the being and character of God, and so to charge with a larger content the simple and colourless definition of God with which we entered upon our enquiry.

The theory of God which we thus construct may be corroborated by an examination of the theological opinions held by religious men. Some of these opinions are matters of actual knowledge : others are mere opinions or traditions.

"A distinction will begin to appear between what the plain man of profound religious experience really knows, and what he only thinks he knows....Only the scientific method of testing inherited religious beliefs can be trusted to separate the gold of genuine religious truth from the dross of untenable dogma."

We may further test our theory by making logical deductions from it and verify or discard it according as these deductions prove to be tenable or untenable. The theory which we form will cover "such points as the moral and metaphysical attributes of God, the relation of God to individual men, to the events of human history, and to the realm of nature. It will then be possible, on the basis of this view of God and of the divine relations, to draw inferences with reference to the future of human individuals and of the human race "

H. SPENCER.

*(To be continued.)*

## REVIEWS.

*The Threelfold State: the True Aspect of the Social Question.* By Dr. Rudolf Steiner. Allen & Unwin.

Two striking things about this work are to be found, one on the wrapper and the other on the front fly-leaf. We are informed, in a publisher's note, that this work has been "translated into most European languages, and 100,000 copies have been issued on the Continent." This is due to the fact that "Dr. Steiner offers a new solution of social problems." Our expectations are naturally roused, and when we enquire what his qualifications for the task are, we get some idea of them from the works he has written: "An Outline of Occult Science," "The Education of Children," "The Occult Significance of Blood," "Atlantis and Lemuria," "The Way of Initiation," etc. We now know what to expect, and our expectation is gratified by sentences like the following: "The social life of the present day presents us with grave and far-reaching problems . . . . the solution of these problems must be sought *along paths that have not hitherto been thought of* (p.1)." "The workers of to-day are persuaded of the ideologic character of the spiritual life, but this persuasion renders them more and more unhappy. They are not definitely conscious of this unhappiness in their souls, but they feel it intensely, and its effect on the social situation is vastly more significant than the demands for improvements in external conditions" (pp 25-26). One has to pick one's way through a mass of high-sounding phrases that either convey no definite idea or dress up a platitude.

The main thesis of the work may be briefly put as follows, mostly in the author's own words.—The body social, if it is to function healthily, has got to evolve its three organic parts, and reformers must shake off the belief in the oneness of the State. The economic life is one of these three parts, the life of common rights, i.e., political life, the second, and all that concerns the life of the mind and spirit, the third, this last including everything that rests upon the natural aptitudes of the private individual. Dr. Steiner demands that in each community

each of these should be separately organised, the relations between the executives, for example, of the political and the economic organisations to be carried on pretty much as those between the Governments of sovereign states at present.

The body economic will concern itself with the best way of meeting the needs of the Soul and Spirit that involve man in the Economic Life, so that the individual may through the organised social life succeed in satisfying his interests in the best possible way, whilst himself contributing as advantageously as possible to its general economy. The economic organisation will encourage the formation of associations composed of men, who by their trade or as consumers, have the same interests, or whose wants in some other respect are similar; and these associations will mutually co-operate to carry on the whole business of the economic state. The economic state will build upon a basis of association and upon the mutual relations between associations. The activities developed by these associations will be purely economic and industrial in character.

Alongside the economic life, but independently of it, another life must grow up, where the rights of man to man can find their sphere and jurisdiction. This life of equity belongs to the field of politics—the State. The two organisations must, however, be kept rigidly separate; because if men introduce economic interests into the legislature and administration of the equity-state, then the standards of right so created will only be the expression of these economic interests. If the political organisation itself takes on the management of economic affairs, then it loses the capacity to rule within the sphere of human equity.

In a healthy society, the spiritual life has a sphere of its own and must function alongside the sphere of politics and economics. What the political and economic states require from the sphere of the spiritual life will be contributed through the autonomous institutions of the latter. It must be left to the forces of the spiritual life itself to initiate the services it renders to the community. It is a grave error to suppose that the state under present conditions only provides the posts from which instruction is given, and that those who take these posts can then blossom forth "freely" in mind and spirit. The life of the spirit can only have its full weight within the social order, when it is represented there by men who have their footing in a domain that is self-ordered and self-developed. It is quite a different thing whether the teacher is acting on incentives given by the life of the State, or whether his incentives proceed from a spiritual life that rests upon a footing of its own.

Apart from this thesis which is not very original and has in part been anticipated by Guild Socialists, attention may be drawn to the author's demand that labour should not be classed as a commodity to be bought and sold, and to the influence of the special conditions in the late Austro-Hungarian Empire on his theories. He holds that the political unity of the Empire, threatened as it was by the nationalism of the different parts, was even more threatened by the economic conflict between the component states. His opinion is that "if a political equity-state had existed as a separate organisation, which could have developed its activities independently of and alongside those of the economic state, then, out of the sense of human right, it would have evolved such a form of the body-social that the various races could have managed to live together within it." Hence his general thesis that the two spheres of interest should be separately organised, so that the unity of the one may not be affected by the intrusion of conflict of interests in the other.

N. S. S. R.

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*A Reasonable Revolution.* By Bertram Pickhard. Allen & Unwin.  
2s. 6d.

THE inequality in the division of National Income and the evils which follow from this inequality are facts of common experience, and a number of remedies of varying value have been suggested by recent writers. The writer of the work under review believes that the plan of a state bonus will usher in a new and better order of things. His proposals are that "(a) every individual all the time should receive from a central fund some small allowance in money which would be just sufficient to maintain life and liberty if all else failed ; (b) as every one is to get a share from this central fund, so every one who has any income at all should contribute a share each in proportion to his capacity." In other words, there is to be a universal allowance of a sum equal to the minimum needs of life, along with proportional taxation. The former is to free the scheme from the taint of pauperism, while the latter will provide a fund sufficiently large to finance this "gigantic insurance scheme, whose chief money benefits accrue to those who at any given time are most in need." It is estimated that 9/- a week per head is the present cost of the minimum needs of life, in the United Kingdom, and it is proposed to raise the sum required, about £850 millions, by a 20 % levy on all incomes.

It is not necessary to go further into the proposals, which are worked out in considerable detail, but enough has been said to show

that the scheme is a familiar one, which raises large issues. There is certainly a great deal to be said in its favour. In practice, there has been a tendency to provide the minimum needs of existence for every human being, irrespective of contribution to national income or welfare, as attested by the poor law systems, unemployment and sickness insurance, and humanitarian jail administration in a number of countries.

Public opinion is also coming round to the position that "the fullest opportunity of development, physical, moral and spiritual, should be assured to every member of the community, men, women, and children." Any definite scheme as that of Mr. Pickhard will no doubt contain technical flaws, in spite of the author's painstaking efforts to meet all possible criticism, but it is to his credit that he has made an honest attempt to work out the economic implications of the magnificent dictum: "The final justification in this, as in several other great economic issues, is in considerations of the absolute value of personality, not of the maximum net sum of pleasure; is by appeal to Kant and not to Bentham or Mill." (Prof. D. H. MacGregor in *The Economic Journal*, 1907.)

N. S. S. R.

*National and International Right and Wrong : Two Essays.* By Henry Sidgwick, with a preface by Rt. Hon. Viscount Bryce. Allen & Unwin. 1s. 6d. net.

MESSRS. GEORGE ALLEN AND UNWIN are to be congratulated on having reprinted these two famous essays from the "Practical Ethics" of the late Prof. Henry Sidgwick, on whose writings it would be presumptuous to pass any comment. At a time when people have begun to question "by what, if any, moral law are states and their Governments bound," these essays, coming as they do from the "penetrating and fertile mind of the Professor, who was equally at home in Philosophy and History," serve as a guide to perplexed minds. A critical review being unnecessary an attempt is made at a brief résumé of "Public Morality" and "the Morality of Strife"—the subject matter of this little volume.

At the very outset Sidgwick draws a distinction between Public Morality and Private Morality, and points out that it would be a violent paradox to maintain that the ordinary rules of veracity, justice and good-faith may be suspended in the case of ordinary walks of life; while the maintenance of such paradoxes has become the practice in that department of morality which deals with the conduct of States.

Emphasising the standard by which men are judged in a consideration of morality the author remarks that such a consideration should not include "the statesman's breaches of morality" as is the case in Germany. The significance of anti-moral and cognate propositions is further expounded, in the course of which exposition the Professor connects the anti-moral doctrine with the name of that Florentine whose principles, "The end justifies the means," "A good result excuses any violence" have become proverbial. But "the immorality of Machiavellianism does not lie in its affirmation that the bindingness of all moral rules is relative or the moral value of actions is to be estimated by their consequences. It only begins when the end in view and the regard for consequence is narrowed." This "National Egoism," the writer says, is the essence of this neo-machiavellianism (19th cent. and not 16th cent.) which has been prominent in the political thought of Germany for the last 40 years. He quotes from Rumelin (1875) who remarked "The State is self-sufficient . . . It can only have regard to the interest of any other State so far as this can be identified with its own interest."

The origin of this neo-machiavellianism in its different phases having been traced, the author sums up by saying that "the 19th century study of history has tended to enlarge and systematize the demand for the moral emancipation of the Statesman." It being needless to refute the extreme form of such a doctrine he mentions that one unjustifiable objection to it has been made on historical grounds: "I do not think that the history of polity and politic ideas gives us any reason for believing that this emancipation from morality if once admitted will never stop where the new-machiavellianism directs it to stop." In spite of the condemnation of this doctrine the author finds out that "there are elements of sound reason in it which have been exaggerated into dangerous paradox" and adds that the most important of these elements—as regards international conduct—is more easily discernible in the work of Hobbes than in that of Machiavelli. In Hobbes' view "morality is a system that man is always bound to keep before his mind as an ideal, but his obligation to realize it in act is conditional on a reasonable expectation of reciprocity," and the error of Hobbes has been pointed out to be not in making this demand for reciprocity but in his palpable exaggeration of the difference between human relations in a so called "Natural Society" and in the State of political order. Still the author cautions us by saying that such an exaggeration should not blind us to the real divergence that exists between the rules of public and private duty. While accounting for such a divergence

Sidgwick subscribes to the view of Spencer, who says "Ideal conduct is not possible for the ideal man in the midst of men otherwise constituted." The difference thus introduced is being recognised in ordinary moral thought. The essay is concluded thus "So far as the past conduct of any foreign State shows that reciprocal fulfilment of international duty cannot reasonably be expected from it, I admit that any other State that may have to deal with it must be allowed a corresponding extension of the right of self-protection in the interest of humanity at large no less than in its own interest."

In his other Essay on "The Mcrality of Strife" Sidgwick differentiates *Strife*, which is primarily "an intense form of conflict in which masses of civilised men elaborately try to destroy each other's lives and incidentally to take each other's property" from *strifes*, which are "milder conflicts that arise within the limits of an orderly and peaceful community" (e.g., struggles for wealth and power), and tries to suggest some remedies. A moralist may expect strife of the first kind to come to an end if altruism dominates over egoism. Though it is highly desirable that such a change should take place, yet, the author says, it is a remote event. Until altruism "becomes sufficiently ardent and universal, and till men are found to be free from selfishness, strife is sure to continue. It is not enough if one or two nations feel this change. Besides, the predominance of altruism in one nation does not permit it to tolerate its neighbour's being wronged by the egoism of another."

War, being therefore inevitable, and not being free from physical mischief and moral evils, may still serve as a school of many virtues if only it is considered not as "collisions of passions and cupidities" but as conflict of two legitimate interests. Speaking about the settlement of such strifes the Professor observes that "*The External Method* of referring the dispute to the judgment of an arbitrator is not safe." His conviction is "that at least for a long time to come every nation in the most important matters must to an important extent be a judge in its own cause," and in matters of international importance "an acceptable compromise is more likely to be attained by direct negotiation than by reference to an arbitrator." Consequently he believes in "moral acquiescence" in such matters, and points out that the remedy can be sought (1) in reducing the causes of strife by cultivating a "Spirit of Justice," (2) in minimising the mischievous effects of strife by the prevalence of a spirit of humanity. The spirit of modern civilization shows a steady tendency towards the latter, and he appeals to humanity to cultivate the spirit of justice.

Even as regards the settlement of strife in its milder form (industrial struggle,) according to him arbitration presents great difficulties. The trouble is increased by the present state of society, which is distracted by the two opposing ideals of Individualism and Socialism. Here too, as the author says, recourse must be had to the spiritual method by appealing to the sense of justice, "sympathy and intelligent apprehension of common interest" which alone can guarantee peace to the world. These essays, being full of practical suggestions, "have the atmosphere of mellow wisdom" which characterises the writings of Henry Sidgwick, "one of the irreplaceable lights of his time."

H. K. R.

*What is wrong with the Stage.* By William Poel. Allen & Unwin.  
3s. net.

THE author is founder and director of the Elizabethan Stage Society, which has done a very great service to the drama—and the theatre—by reviving Elizabethan plays and playing them under the original theatrical conditions. This very sensible and entertaining little book consists chiefly of extracts from the press, forming "press evidence" in support of the author's contentions. Both the drama and the theatre of our time are, he conceives, sadly decadent. The kind of drama to be purveyed is decided by the stockbrokers who put up the money. The money-making methods of theatrical managers place a ban upon true art. Real drama, and real acting, are precluded by the actor-manager's habit of seeking first the sort of play that will give him a superlative part. The newspapers are carefully coached by theatrical managers, and many things appear as "theatrical news" that should really be marked "Advt.," while advertisements themselves reach absurd proportions, and are a means of exerting pressure upon the press. These are some of the evils which Mr. Poel indicates and for which he suggests remedies. The press-cuttings he adduces make the most amusing reading. Here are one or two —

Interviewer: "Then would not a tragic ending to your play have been more natural?"

Playwright: "Well, I'm sorry, you know—but I must live."—*Daily Chronicle*, March 25th, 1916.

"Chu Chin Chow reached its 255th performance at His Majesty's," (a London theatre) "last Friday. This beats the 'Henry the Eighth' record by one performance.—" *The Referee*, March 18th, 1917."

"But both Irving and Tree insisted on being tragedians. This was a pity. Irving could not play Macbeth, and Tree was obviously unfitted for the part of Hamlet."—Arthur Machen, *Evening News*, July 3, 1917."

"If Shakespeare came to New York to-day he would starve to death if he tried to make a living as a playwright or as an actor. Most managers would not like 'As You Like It,' and he would probably be told that a play like 'Hamlet' is not the thing! So his great works would be 'Love's Labours Lost.'—*New York Times*."

All this is preceded by very brief but illuminating discourses on the older drama and theatre.

*The Twentieth Century*. By Harold F. B. Wheeler. Harrap & Co.  
3s. net.

THIS is a most informative and attractive book, which successfully endeavours to give an account of the movements, both political and social, of the time, and also to provide a succinct account of the causes, events, and results of the Great War. The first chapter, "Edward the Peacemaker," excellently describes the personality, and the political activities, of King Edward VII, and the second deals similarly with the present King-Emperor. Next comes a chapter devoted to England's foreign relationships, 1878-1914. Then follow well-informed and carefully written chapters on a number of the most vitally interesting topics of the day—tariff reform, colonial progress, Ireland, the advance of women, the progress of labour; and an account is given of "the making of the New Navy." Finally, there are fifteen chapters relating to the War.—The reader in India will find the book of great assistance to him in supplying him with definite facts as to movements and problems of world-wide importance. It is admirably produced and contains (besides maps and portraits) eight full-page illustrations.

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*The Year Book of Modern Languages, 1920*. Cambridge University Press.

THE General Editor of this first volume of the Year Book of Modern Languages bespeaks for it that indulgence which is the privilege of new ventures. And he makes it easy for us to forgive the inevitable defects of this kind of book, by calling our attention to them in his preface and by promising to avoid them in future issues.

Nor would it be reasonable to bewail the leanness of some of the bibliographies when, on the other hand, one has the pleasant surprise of

finding interesting articles on the Provençal and Celtic languages and on the literature of South America.

Among the theoretical projects for the advancement of the study of modern languages, that of phonetics will be watched by teachers, young and old, with amused, if indulgent, scepticism.

It is a pleasure to see that generous space is given to German erudition, after the blunt and unintelligent ostracism of war days. At the same time it would be an error to revert to the old blind prejudice in favour of even the least proven of German linguistic theories. One might find much to say in this regard, particularly in the matter of old French, Provençal and Celtic.

Our best of wishes go with this new publication, which, as we can already gauge, will not be disappointed of success.

J. B. A.

## COLLEGE NOTES.

### **Maharaja's College**

THE College is becoming exceedingly populous, containing this year over 500 students, of whom about 200 belong to the First Year Class. The Commerce classes and the M.A. classes maintain their strength. The College Co-operative Society continues to fulfil its double purpose—that of getting text-books and stationery for students at minimum prices, and that of providing the Commerce students with a little practical experience. The Philosophical, Kannada and Sanskrit Associations are active, and the reports received appear below. Arrangements are being made for dramatic and musical performances in the various languages. *Macbeth* is the English drama chosen, and rehearsals are now proceeding under the direction of Mr. Rollo.

The Union is the social centre of the College, and its reading-room and games room are increasingly popular. Two tournaments—in table-tennis and draughts—have been held during the past month, and have roused much enthusiasm. A chess tournament is about to be held. The first meeting of the General Body was held on September 3rd. Mr. Radhakrishnan was elected Vice-President, and Mr. S. V. Krishnaswami Iyengar Honorary Secretary, while the remaining places on the Executive Committee were filled. The Executive Committee met on September 10th, and at this meeting the various sub-committees were formed. The sub-committee for debates, etc., has in hand a programme both of debates and of literary meetings. The opening debate was full of promise. The motion was “That social reform may fitly be promoted by means of legislation,” and there was much acute and vigorous speaking. The debate lasted over two sittings of the Union—and a third sitting, had it been possible, would scarcely have exhausted the list of those who desired to speak. The result of the voting was—Ayes 50, Noes 67.

**The Philosophical Association.**—The Philosophical Association began its activities on the 21st of July. Three papers have since been read before the Association—the first on “The Psychology of Poetry,” and the second on “The Philosophy of Vedanta,” while the last was a sympathetic exposition of Positivism.

Speaking on "The Psychology of Poetry," Mr. M. A. Venkata Rao propounded the theory that all true poetry was the outcome of intuition, defining intuition as "the appearance of Reality in all its richness and life to the human spirit." What distinguished the treatment of the subject was not the mere insistence on the intuitive origin of all true poetry, but the bringing out of the mystic affiliation of art with insight into the "unity" of all things. Thus interpreted the true poet is also the mystic who has an intuitive vision into the heart of Reality.

The discussion centred about the fact of intuition as defined by the lecturer. Mr. H. Subba Rao pointed out (1) that at the present stage of psychological progress it is better to avoid the use of a word which has no definite connotation; (2) that it is impossible to believe in anything like intuition, if it means a shower of illumination from above; and (3) that it is better simply to regard a poet as a man gifted with more feeling and intellect than ordinary men. The debate acquired special value through the personal interest which Professor A. R. Wadia, the President, took in it. He believed in intuition, and defined it as consisting in the creative power of the poet. He regarded the poet as a peculiarly endowed being, and not merely a man with greater feeling and insight than ordinary men.

The second paper, read by Mr. S. P. Sharma with Professor Hiriyanna in the chair, was if anything too comprehensive. It was in essence the unravelment of the implications contained in the philosophical truth, "Tat Twam Asi"—"That Thou Art."

At the third lecture Professor Radhakrishnan presided. Mr. N. Seshadri expounded the relativism of Comte's metaphysics and his conception of the Religion of Humanity founded by him, and ended by recording his approval of the system, and enumerating the names of contemporary adherents to positivism, such as Frederic Harrison. The debate that ensued was very lively. It was a spectacle to see Mr. Seshadri stubbornly holding to his positions, and retiring step by step, with frank admission of his defeat, when he found his ground undermined, till at last it was concluded that Comte's ethics was untrue to his metaphysics, and the Religion of Humanity unsustainable without belief in a nobler unity of truth, goodness, and beauty, as the ideal of human progress.

The Philosophical Association must record its debt of gratitude to the professors of philosophy, who have shown personal interest in its activities; particularly to Mr. Wadia, without whose unceasing support it would have been non-existent by this time.

**The Kannada Association.**—As our activities began rather late this year, we have so far been able to hold only three meetings, including the general meeting which was convened to elect the office-bearers for the year 1920-1921. The following office-bearers were elected:—

*President.*—Mr. B. M. Srikanthia, M.A., B.L.

*Vice-Presidents.*—Mr. B. Krishnappa, M.A. and Pandit K. Vardachar.

*Secretary.*—Mr. Mohamed Valiulla.

*Assistant Secretary.*—Mr. A. Rama Rao.

A programme of the meetings of the Association has been prepared. Mr. J. Krishnamoorthy, the former editor of the *Vidyodaya*, delivered an able lecture on the question “Is it necessary to bring changes into the existing condition of Indian women?” Although the number of the students attending the meeting was not very encouraging, yet the part that many of the members present took in discussion was highly creditable. Our learned Assistant Professor, Mr. B. Krishnappa, M.A., in his presidential remarks, criticised some of the points made by the lecturer and the debaters, and remarked that the world cannot exist in a stationary condition, and changes must take place whether some people want them or not. Consequently, he said, changes in the present position of women will necessarily come about; and he indicated the lines on which some changes might be effected.

It is highly gratifying to record the help given by Vidwan Keerthana Kesari Jaya Rama Charya, the well-known Harikatha performer, in the shape of a religious lecture in the course of which he exhorted the students to take an interest in the language of their country—a language which can boast of such remarkable poets as Nrupathunga, Pampa, Ponna, Ranna, Kumara Vyasa, Kumara Vallmeeki and Shadakshari. He graphically described the greatness of the Kannada country, which had produced such celebrated religious preachers as Shankara, Ramanuja and Madhava. The manner of his address was as interesting and impressive as his subject was inspiring and patriotic. His highly appreciated lecture was frequently punctuated by applause. Every one of the six or seven hundred that attended the meeting was greatly delighted, and the Association feels highly grateful to the learned lecturer.

MOHAMED VALIULLA.

\* \* \* \* \*

**The Sanskrit Association.**—Between the 2nd of August and the 7th of September three discussion meetings were held; and it has been settled to start, for the students of the Sanskrit classes in the College, a Sanskrit conversational class, which will be conducted by Mr. C. R. Narasimha Sastry, M.A.

S. RANGA RAO.

**Games.**—(Mr. H. Krishna Rao kindly furnishes us with details.) Greater enthusiasm than ever is being displayed for games,—but still by a very small number of the students. Perhaps about *one-sixth* of them take any real part. This means that games are used as a means of keeping fit by those who are fit already, while the unfit will scarcely even take an evening walk. The Principal and the Physical Director and other members of the staff have been trying hard to remedy this evil. We believe that the long-deferred institution of a University Corps might do much. But certainly, as things are, the desire of Government and University for the physical betterment of *every student* is unfulfilled.— Our financial resources are scarcely adequate for games themselves. It is a most regrettable thing that for the annual inter-class tennis tournament which is just commencing, and which is one of the most interesting features of our athletic year, we have to charge entrance fees, thus certainly excluding many who otherwise would enter. The balls for this tournament cost about ninety rupees, and the entrance fees amount to something like sixty, and our funds cannot contribute more than the thirty rupees difference. We feel that poverty should not be a barrier in a matter like this. An argument in favour of the University Corps scheme is that it need cost practically nothing in recurring expenses, while benefiting those who at present have no exercise at all.

The usual opening games have been played between different classes, and in cricket the present students have met the old boys. We are strong in football, promising in hockey, and thoroughly weak in cricket owing to the neglect of this game in the schools, and to the great difficulty of inducing our cricketers (practically all of whom play other games also) to practise regularly at the nets. A cricket match was played in August against Bishop Cotton's High School, whose visit we greatly appreciated. The game was interrupted by rain, and drawn. In a recent visit to Bangalore we drew a match with the Bangalore Town Eleven, and lost to the Central College and the Bangalore Players. Our football team drew with the Maharaja's High School and the Marimallappa's High School (the team being weakened for the latter match), and, in Bangalore, beat the Central College and the Hindu Social Union. In hockey we have played two matches with the Maharaja's High School, drawing the first and winning the second; while in Bangalore we drew with the Central College and lost to the Indian Hockey Eleven.

The annual inter-class tournaments in all games are now beginning, and are expected to be finished by Dasara. In these tournaments we rope in all the men we can. Volley-ball has been introduced this year, and alas! is played chiefly by those who play other games also.

The Maharaja's College Football Tournament (open to outside as well as college teams) is to be held in the last week of September.

\* \* \* \* \*

### Maharani's College

THE vacation having come to an end, the college grounds ring once more with the busy footsteps of students and professors. A new year has opened and has brought changes with it. The results of the promotion examinations have been published, some familiar faces have gone to other departments, additions have been made in the staff, and, more than all, the College has secured, what it greatly needed, a good library. A new Librarian, entirely absorbed in his special work, is still busy classifying the books. Sri Lakshamma, M.A. is appointed Lecturer in the College Department to fill the place of Mr. Nanjundiah. The results of the University examinations were good : four out of six in the Entrance, and two in English and two in History out of the four candidates sent up for the B.A., are declared successful, while Sri Ranganayakamma, one of the four, is a full-blown graduate. She is now taking the M.A. course at the Maharaja's College. Our warm congratulations and best wishes attend all the successful candidates.

The students and professors are co-operating to revive the College associations, which were slumbering during the long holidays. Already a new club has been started, which hopes to combine both amusement and instruction. The first meeting was held on the 25th of August, when Mr. J. C. Rollo gave us a dramatic reading—the play chosen being “The Well of the Saints,” by Synge. It was greatly appreciated by the students and visitors present. It is to be followed by an address from Miss Coleridge, of the Church of England Zenana Mission, on “English Home Life.” Two evenings in a month are to be devoted to games and music and two to literary subjects.

The College Magazine published quarterly is winning great popularity, as is seen by the number of subscribers. It is hoped that the Games Club and the Debating Society will soon be equally in earnest in carrying on the College activities.

It has been finally settled that the eagerly looked for new College buildings will not be given to us for some time to come. It is a sore disappointment, but we are taking it bravely with the hope that “All good things will come to him who waits.”

\* \* \* \* \*

### Central College

THE Physical Sciences Club began its work this year with a general meeting for the election of office bearers for 1920-21, the President,

Mr. E. P. Metcalfe, B.Sc., occupying the chair. The next meeting was held on the 25th of last month, when the inaugural address, on "The Discharge of Electricity through Gases," was given by the President. In the course of the address a few very interesting experiments were shown, which were highly appreciated by the members present. The meeting was very largely attended, and much interest was evinced by the students. It is hoped that before the year ends a few papers of scientific interest will be read by members of the club.

B. ANANTHASWAMY RAO.

**Cricket.**—The season began as late as the middle of August. It was with great difficulty that we arranged a few fixtures. Hereafter we must print our fixture cards by the end of June.

Practice has been very regular, and the attendance good. The juniors are very much handicapped by the want of a good pitch. The two new practice pitches which are to be ready soon will supply this long-felt want.

So far we have played five matches. We won three and lost two. The last we played was against the Maharaja's College team, who were kind enough to pay us a three days' visit. Winning the toss, they elected to put us in, and within two hours the score went as high as 210 for five wickets. Subbarayan and Solomon played brilliantly, hitting all round and scoring 94 and 63 respectively. Owing to heavy rain the visitors' innings began only about 3 p.m.; and they were all out for 74 runs by 4.30 p.m.

By the end of December we hope to play a dozen more matches at least.

K. SHESHADRI IYER.

**Hockey.**—We opened our hockey season with a practice match, one side representing the Engineers and the other the Arts students. The game was fast from beginning to end, and some good play was seen on both sides. The match ended in a tie, the score being one all. One feature of this opening match was that many who had begun hockey rather late showed a decided improvement; and the future of the hockey team is not in the least likely to be disappointing, though we miss the services of two of our best sportsmen, Mr. Devaraj, B.A., who has joined the Medical College, and Mr. J. P. David, B.Sc.

Our friends from the sister institution, the Maharaja's College, Mysore, visited us in the beginning of September and encountered us in all games. In hockey the match between the Maharaja's College and the Central College ended in a draw. We expect to meet them once more, and hope for a definite result.

The attendance on the hockey field ranges from twenty-five to thirty, and every one is enthusiastic. There are two teams at present, and since we have not two fields the juniors practise on three days in the week and the seniors on the remaining days. We hope the authorities will soon provide us with another field. We have arranged for a series of matches for this season, and hope to develop an excellent team.

S. H. G. NAYUDU.

### College of Engineering

THE last six months may be said to have been eventful in the history of the College. From the time when the last notes were written up to the first week of April, the students were busy donning their armour to grapple with the great annually-recurring foe, the Examination. The nervous strain during those months, fateful to many, due to enforced packing of all kinds of wares which the Examination exhibition demands, and the subsequent removal of tension after the unloading process is complete, is not new to anybody.

Unlike other college students, the students of this college had no vacation till the commencement of May. They spent nearly a month in visiting such engineering works as Krishnarajasagara works and the engineering works in that neighbourhood, railway and canal works near Yedatore, Holenarasipur, the Kolar Gold Fields and the Bethmangala pumping station. The students only wished that the tours had been outside the State. Of course, all the students were benefited by these visits, even physically. The trotting in the April sun was, no doubt, very tiresome, and their spirits would probably have broken down had it not been for the promise of a grand moonlight feast at the close of the tour. As soon as the inspections were over, the students rushed to their homes with that inexpressible delight which only those going home for holidays after months of strenuous work can appreciate. The remaining two months of the vacation were, of course, spent by them in that delightful bliss and listless ease which only a student can enjoy. It gives pleasure to record here that 35 out of 39 students passed the Intermediate Examination in Engineering, no fewer than six being placed in the first class.

The College session began in July as usual, and this year saw the college in a full-fledged form, as the fourth year class was started. There was a record rush for admission to the college this year, technical education is becoming so popular, and nearly 190 candidates are stated to have applied for admission. It was sad to see so many returning from the college office disappointed, since no more than 43, from amongst so many, could be admitted. One could only sympathise with them and wish there were provision for a greater number of students. The students of the 2nd and 3rd year classes went out for surveying practice till the end of July, and they spent their 25 days in walking over hill and dale, in levelling, and in contouring hills and tanks. Out-door work appeals strongly to students. The mechanical equipment of the College has materially increased, and a fairly well equipped workshop is being organised with several lathes and other machine tools, a testing machine, oil engines and a steam set with accessories. One more Assistant Professor, Mr. C. Ramachandra Rao, has joined the College, and two more are expected to be appointed shortly.

The Engineering College hostel has been started with about 25 boarders, but according to Government orders the boarders have to bear half the charges for the rent of the building and the establishment. If this order is enforced, it is stated on good authority that the boarders of this college hostel will have to pay three times as much as the boarders in the Central College hostel. It appears that the Central College hostel has a rent free building, and the nominal rent collected from the students is utilised for the benefit of the hostel itself. We hope that the Engineering College hostel will be given the same facilities as the other University hostels. Otherwise it is very likely that the hostel will not become popular, and may eventually have to be even wound up, owing to the heavy charges.

The social and athletic activities are practically yet to begin. The athletic organisation, newly brought into being, has yet to be placed on a satisfactory basis. The students' Engineering Association has yet to elect its office-bearers and begin work in right earnest. All this is expected to be done in the current term.

K. D. J.

## EDUCATIONAL NOTES.

*The Film as an Instrument of Education.*—While there is much discussion as to how far the cinematograph can be used as an aid to education, it has already been taken in hand by American educationists through the American Red Cross, which had proved the value of the film as a means of instruction during the war. A Bureau of Pictures was established and a branch has been created in Paris where libraries of films are accumulated. In America there are now many branches where films can be procured of educational, scenic or industrial interest. The Bureau has a large staff of photographers, and it is hoped that as the library grows it will be possible to make a co-ordination of films so that they may form part of an educational curriculum. Schools being built to-day in the U.S.A. are being provided with a properly equipped cinematograph theatre. It is a development of the magic lantern which has for many years been used as an effective accessory to the ordinary lesson.

In Britain is still awaited the report of the Cinema Commission on the effect of the film on the child.

*The Cost of Education in England.*—The war has brought about a revision of popular views of education, and there are few now who do not realise that it is one of the most vital needs of the state. There is, too, a general agreement that it must be both deeper and more comprehensive than heretofore. The Government shows its realisation of this by a greatly increased grant.

The figures for 1920-21 are £45,755,567 as against £15,245,691 in 1914-15. The sum required from the rates is now £31,716,717 as against £14,860,000 in 1914-15.

Education, including all forms, is about to cost the state not less than £100,000,000 a year.

\* \* \* \*

*Higher Fees at the English Universities.*—The dreams of the idealists are still very far from realisation. The inexorable economics of the day make it necessary to raise all the fees at the English universities.

In University College, London, it now costs a student for his three sessions, in College fees alone, anything from £100 to £200; the course in Law being the cheapest and that in Engineering and Architecture the dearest.

On the other hand the Government is seriously considering the very urgent needs of the Universities, and is taking steps to mitigate their undoubted hardships by an increase of grants-in-aid, by a remission of certain taxes and by a new system of maintenance grant.

\* \* \* \* \*

*Lady Wantage.*—The death of Lady Wantage will perhaps remind a forgetful public—

How much one man can do  
That does both act and know.

Lady Wantage was completely familiar with the struggles of a young University in seeking to establish itself—her husband was President of University College, Reading in its early days. She studied its problems of existence, sympathised with its aims and realised its possibilities.

Among her many benefactions to the young University perhaps the most notable was the building and endowment of Wantage Hall as a hostel for the students, for it was a recognition of the fact that a University owes its alumni much more than mere instruction, and it was a stimulus to university pioneers elsewhere to establish residential halls as a necessary appendage to lecture rooms and libraries.

*Pensions.*—Teachers in non-provided Secondary Schools in England are making a movement to get themselves included in the list of those eligible for a Government Pension. At present only teachers in schools under the Board of Education can look forward to an old age not absolutely unprovided for. In most cases schools cannot raise funds for private pension schemes, and the teachers in many schools that have done notable work, and whose indispensability is fully recognised, are thus penalised. The Chancellor of the Exchequer holds out hope that efficient schools that can be proved to be run for no private profit and that cannot provide a pension scheme of their own will be considered eligible for pension aid.

*Summer Courses.*—Vacation courses at the English universities grow more and more popular. At Durham the summer courses just concluded in a large range of subjects were attended by some two hundred

teachers. One hundred and seventy students attended an Education Course at Oxford, where the Headmaster of Eton gave the opening address. Forty Swedish students came to Bognor for a holiday course in English lasting six weeks.

\* \* \* \* \*

*Industrial Scholarships in Madras* —The Government of Madras has instituted a large number of industrial scholarships (sixty to be awarded in each year), tenable by pupils of recognised industrial schools and by apprentices (boys and girls) in such mills or workshops as provide at least four hours weekly of class teaching. The scholarships, which may be held for five years, rise from Re. 1·8 per month in the first year to Rs. 7·8 in the fifth, and there are bonuses. Scholarships are not to be granted to candidates who are over 17 at the beginning of their apprenticeship, except that for Mohammedans the age limit is 19. “The general educational attainments of candidates should be such as would enable them to profit by the training provided. Ordinarily a Standard V pass in the Primary Grade will be regarded as the absolute minimum, but the nature of the trade to be followed, the pecuniary circumstances of the candidate, and his general fitness for the work will be taken into account in deciding whether a candidate is qualified for the scholarship.” The scheme is intended to encourage pupils and apprentices to stick to one school, workshop or mill, and Government hope that employers will “co-operate with Government in this scheme to the extent of conducting recognised classes in their works during working hours, or allow their apprentices time off duty to attend classes in the Madras Trades School or any other place where suitable training is provided.” Grants will be available for suitably conducted schools and classes.

\* \* \* \* \*

*The Muslim University*, the text of whose bill is now published is to be a unitary, residential, teaching university. With the Sadler Commission Report as guide it has established a Court, a large body composed of representatives of various interests, which will be the supreme governing body; an Executive Council of 18 members including *ex-officio* members, the officers of the University and representatives of the court, the Visiting Board and the Academic Council; and an Academic Council of 30 members, which corresponds to a Senate and which is to have final authority in all academic matters, subject to the general control of the court, and, in case of gross dereliction of duty, of the Government as well. The Academic Council will be a council of educationists.

The first Chancellor, Pro-Chancellor, Vice-Chancellor and Pro-Vice-Chancellor will be nominated by Government, and their successors will be elected by the Court. The staff will be appointed by the Executive Council and a Selection Board. The statutes and ordinances passed by the court will be valid only after the approval of Government, but such approval will be automatic save under the condition mentioned above.

*The International Federation of University Women.*—In the Notes in last issue we referred to the Conference of the International Federation of University Women to be held in London in July. A woman writer in the *London Evening Standard*, dealing with this gathering, refers to the admirable speeches made by the delegates. Though many of them bore the weight of great academic distinction, there was nothing of the "blue-stocking" about them. Their speeches were never dull or heavy, and "they pitched their voices so as to be heard, without forcing the shrill note which makes one shiver when many—no, most!—women begin to speak."

"They are an association of university women, but they need the help of all women, and among them are many well fitted in every sense to help in the planning of the foundations of a real peace. Above all, they want it understood that they are not organising against men but in order to co-operate better with them; that they do not believe in segregating women in women's universities, but, on the contrary, in everything that leads to fuller co-education; and that in the future, when their ideals are attained, they believe that the need for separate organisations for women will have ceased.

"There are four practical ways in which these university women hope to promote a better understanding between different nations. The first is the organisation of a system of exchange of lecturers and scholars of different universities. Secondly, the provision of international scholarships and travelling fellowships: to extend, in fact, and amplify the Rhodes system of scholars. Thirdly, they propose to establish club-rooms and hostels in every university centre in the world, with hospitality committees to look after foreign visitors. And finally, they will co-operate with the national Bureaux of Education in all countries. These hostels, these hospitality committees, this entertaining of strangers, may accomplish great things for international good fellowship. In the war, the hospitality shown to lonely men on leave did more than we shall ever know to cement the ties which bound us to our Dominion

men, and them to us. It is the personal contact between the people of different races which will count in the end in keeping down wars."

We see from *The Collegian* that a meeting of Indian university women was held in Calcutta on July 24th, when a message from the Federation was read, and, in response, the following resolutions were passed.—(1) That the women graduates of universities in India be invited to combine in forming a Federation of Indian University women, with local branches. (2) That this Meeting resolves to form immediately a Calcutta branch of such an organisation. An *interim* committee was formed, and Mrs. P. Chaudhury was elected President. A draft of objects, constitution, and bye-laws was approved. The following are the objects of the Federation :—

"(1) To act as an organization which shall afford opportunity for the expression of united opinion, and for concerted action by university women.

"(2) To facilitate intercourse and co-operation between university women, and maintain their interest in and connection with academic life.

"(3) To encourage independent research and to stimulate the interest of women in public life."

"Membership," says *The Collegian*, "is to be limited to Indian graduates only ; though very few (five in all, was the proposal) women of other universities will be invited to become associate members."

We think this rule is a mistake. The Federation will better attain its end of comradeship and united effort if admission is made without consideration of race.

## SCIENCE NOTES

COMPILED BY MR. B. VENKATANARANAPPA, M.A.

*Function of Technical Schools and Universities.*—The *Electrician* (London) in one of its recent editorials says.—“At the present moment, when scientific and technical education is being much discussed and plans for their expansion are in preparation, it is worth while to consider seriously what the functions of the various institutions, colleges and universities should be, and especially how their activities should dovetail into one another. We perceive a tendency for institutions that are essentially technical schools or colleges to assume almost the functions of a university, and simultaneously we find the older universities, in their zeal for applied science, taking up work that might perhaps be more fitly left to technical colleges. There is also a certain inclination towards amalgamation for mere ‘bigness,’ which we are not sure is always desirable in an educational institution.”

These remarks are suggested by the fact that in Germany the functions of technical schools are now being much discussed. There the so-called technical school has perhaps reached its greatest development, Charlottenburg being, of course, famous for its size and equipment. Professor Reidler, late Professor of Engineering at this institution, is dissatisfied with the present methods, indicating that too much stress is laid on pure technique and encyclopaedic knowledge, and too little importance attached to general scientific methods and principles. It is perhaps a natural consequence of the commercialization of science in a narrow sense, and the modern tendency to “judge by results.” The pure spirit of scientific research and the uncramped imaginative effort that gives, in the long run, the greatest benefit to humanity, does not thrive in a commercial atmosphere. It is very necessary that this greatest work should be pursued at the leading universities, and that they should not be compelled to adjust their methods to the “payment by results” tendency. Even at those institutions which are admittedly mainly technical and even industrial, there should be room for the humanizing element in education, and not too much emphasis should be placed on the purely material side of Science.

ENGINEERING NEWS-RECORD (N.Y.)

*Non-leaking Storage Battery.*—A new storage battery, said to be absolutely non-leaking, has been produced. It has a special valve to let off the explosive gas, so arranged that no acid can get out. The plates are separated by strips of wood, which not only prevent short-circuiting inside the cell but retain the acid when the storage battery is upside down, giving an electrical efficiency of 75 per cent in this position. This battery is said to be a German invention.

#### SCIENTIFIC AMERICAN.

*To make wood acid proof.*—Take 6 parts of wood tar and 12 parts of resin and melt them together in an iron kettle, after which stir in 8 parts of finely powdered brick dust. The surface to be covered must be thoroughly cleaned and dried before painting the warm preparation. This is said to be very useful for painting wooden boxes used for carrying storage cells on cars.

I.BID.

*To destroy tree roots.*—A very thorough and cheap method of completely destroying tree roots is the following.—Bore several holes in the stump as deeply as possible and pour into the holes a saturated solution of saltpetre. After a few weeks' interval light a bonfire on the top of the stump during dry weather. The whole stump to the smallest rootlets will smoulder away. The saltpetre penetrates throughout the root system and acts like touch paper. The resulting ash fertilizes the soil.

#### TROPICAL LIFE.

*Sir Jagadis Chunder Bose.*—Professor Patrick Geddes, a well known sociologist and, at present, a professor in the University of Bombay, has written an account \* of the life of Sir J. C. Bose, a distinguished Indian scientist, now the Director of the Bose Institute in Calcutta, and a man of sixty-two.

Bose has made himself famous by his work on plants. By means of a very delicate instrument invented by him, which he has named the magnetic crescograph, he has been able to demonstrate the growth and other movements of plants. The slow growth of a plant, say, of a foot per year, if calculated out, amounts only to a fifty-thousandth of an

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\* The Life and Work of Sir Jagadis C. Bose, Longmans, 16s. net.

inch per minute. That such a slow growth can be demonstrated directly comes as a surprise even to those who are alive to the wonderful things that Science is constantly claiming to do. The crescograph makes the movements of the plant visible by magnifying them from 1 million to 10 million times; the movement being shown by a spot of light from the crescograph rushing across a screen. The growth activity of a plant may be held in a state of arrest, and then renewed or stimulated by suitable applications. The life of the plant becomes subservient to the will of the experimenter: he may bring it near the point of death by application of poison, and when it is hovering between life and death resuscitate it by the timely application of an antidote. It all looks like magic, but it is only an achievement of Science.

Very recently, some of Bose's work has been called in question, the movements recorded by his crescograph being ascribed to other causes. He was challenged to give a demonstration of his instrument before some experts in physiology and cognate subjects. He accepted the challenge and came out quite successful. Sir J. C. Bose is a physicist and not a physiologist by training, and therefore has had a good deal of opposition to encounter from those physiologists who foolishly dislike people of other sciences "butting in" to their subject.

#### DISCOVERY.

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*Dangerous Dyes in Black Cotton.*—At a recent meeting of the Medical Society of Vienna, Dr. Sachs demonstrated an excised finger of a woman who had injured it some time ago with a thread of black cotton. Soon after this slight injury the finger became sore, boils and bullæ appeared, and ulceration ensued in spite of regular treatment. Necrosis (local death) followed, and the finger had to be removed. Examinations by bacteriologists and chemical experts showed that micro-organisms were not the cause of the trouble, but that the chemical dye used in the process of manufacturing the cotton was responsible. The dye is known as "ice-black," a coal-tar dye: its necrosing effect was noticed some time ago, and is similar to the evil effects of the dye with which the so-called ink pencil is charged. Special precautions in the process of colouring of industrial articles are, says a *Lancet* correspondent, therefore, being urgently advocated in Austria.

POPULAR SCIENCE SIFTINGS.

*Monsoon Rainfall in 1920.*—In a Memorandum regarding the probable amount of monsoon rainfall in 1920 by Dr. Gilbert T. Walker which has recently been issued, data of importance are given showing how the monsoon rainfall in India is affected by previous weather conditions over various parts of the earth. In summing up the effects of the various factors, it is mentioned that the prejudicial effect of snowfall from Persia to the Himalayas is exerted when at the beginning of June the accumulations extend over a larger area than usual. The great excess of snow reported this year is confirmed by the low temperatures in the Punjab. Heavy rainfall in South Ceylon, Zanzibar, East Africa and Seychelles is prejudicial, but data for this year show a moderate deficit over normal conditions. A close relationship exists between heavy rain in Java from October to March and low barometric pressure in Bombay in the succeeding six months : in Java the rainfall was nearly normal and its effect is negligible. High barometric pressure in Argentina and Chile is a favourable condition, but this year pressure is in slight defect. It is stated that the conditions indicate that in North-West India the monsoon is likely to be weak, at any rate in the earlier part of the season, and for the rainfall of the Peninsula, North-East India and Burma the indications are not sufficiently definite to justify a forecast.

#### NATURE.

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Contributions and books for review should be forwarded to the Editor, Mr. J. C. ROLLO, Maharaja's College Mysore.



# THE MYSORE UNIVERSITY MAGAZINE

DECEMBER 1920.

## EDITORIAL.

THE VICE-CHANCELLOR.—We desire in the name of the University to welcome the new Vice-Chancellor, Dr. Brajendranath Seal, who as we write has just assumed office. It is everything for the University to have as its head a scholar of the first rank; and it is good to hear that Dr. Seal will himself take part in the teaching work of the University. We believe that, though he comes so far, Dr. Seal will from the first feel at home in Mysore. He will certainly find a body of people loyally awaiting his leadership, and prepared to co-operate earnestly with him in his efforts to establish and expand the University. We owe a great debt to Sir Leslie Miller who, without diminution of other duties, has kept the University running smoothly during the *interregnum*; and the straight talk in his Convocation Address was perhaps the greatest service of all.

CONVOCATION, 1920.—The third Convocation of this University was held at 9 o'clock in the morning of Monday, November 1st, in the great marriage hall of the Jaganmohan Palace. The hall had been altered for the purpose, and it would be hard to find a nobler and more suitable Convocation Hall in India. In the body of the hall and in the pillared verandahs there is room for about 3,000 people, while the side galleries are excellently adapted for the accommodation of ladies. Two improvements only are still required—the provision of a sufficiently large room for the preliminary meeting of the Senate, and some arrangement to render the speakers' voices audible at the back of the hall. The P.W.D. had indeed improvised a wonderful instrument which, when placed over the head of an orator, gave a startling megaphonic quality

to his utterance ; and though there was not time to adapt this satisfactorily for this Convocation the difficulty will no doubt be overcome. The usual meeting of the Senate to ratify the degrees was held at 8-30, and His Highness the Chancellor arrived at 9, and was received by the Vice-Chancellor and the fellows, whereupon the procession of fellows, university councillors, deans and mace-bearer preceded His Highness to the dais. There were about 120 graduates, including two ladies, one of whom was granted the B.A. and the other the M.A. degree, while another lady M.A. had left for England to pursue her studies there.

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THE ADDRESS.—The Vice-Chancellor, Sir Leslie Miller, delivered the Convocation Address, combining with it the usual brief report on the year's work of the University; and this clear-cut, direct, and definite address made a great impression upon the audience. It is unnecessary for us to retail it, since it has been printed in full both officially and in the press, but we wish to refer to certain of the important points which it raised.

WOMEN STUDENTS IN THE UNIVERSITY.—The growth of the University was referred to, and particularly the facts that the number of students has increased by about a hundred and that accommodation in certain colleges has become a serious difficulty. But, commented the Vice-Chancellor, the increase is in the number of men-students only: the number of women-students is disappointingly—and surprisingly—small. He said that possibly we ought to give to women's graduation courses greater variety, and thus greater attractiveness, but of this he was somewhat doubtful; while he was certain that even under present conditions there *ought* to be more students in the Maharani's College. He did not seek to apportion the blame, but—"I am sure the University cannot be held to be mainly, if at all, in fault."

It certainly is most disappointing that the number of students in the Maharani's College does not increase. There are four or five in a class: a dozen or so in the college. Yet there is really no reason for pessimism. It is a very good sign that among the four or five there is usually one at least who can hold her own with the best of the men, and that those who proceed to the M.A. course do most creditable work. The reasons for delayed progress are those purely social forces which operate everywhere in India, and which here, as elsewhere, are gradually but surely being overcome. Certainly hope does not lie in the direction of making women's university courses more "attractive." Such

attractiveness may mean mere easiness, as in Japan ; or it may mean the wholesale substitution of subjects, as has sometimes been advocated here. Neither of these kinds of differentiation would be acceptable to Indian women, who have already shown clearly enough that what they want is precisely the sort of higher education that is given to men. As we have remarked before, such differentiation is really based not upon the real but upon imaginary differences between men and women, and upon a disguised, yet visibly persistent and totally untrue and unworthy, idea of women's inferiority. It is part of the same social attitude that keeps the Maharani's College empty. For this emptiness the curriculum is certainly not to blame. Further, neither upon the University nor upon the Education Department, both of which are doing their utmost for the cause, can any blame be laid, while Government also displays the greatest liberality in the provision of scholarships and of every sort of encouragement. Least of all can blame be laid upon the Maharani's College itself. It is to be hoped that members of the University, and the public, are aware of and appreciate the work that is being done there. A very small college provides great opportunities; and in spite of serious difficulties of accommodation, which no doubt will soon be remedied, the Maharani's College has become a college indeed—a body of people intimately and happily associated in study, in discussion, in play, in everything that pertains to the academic and the social life. The Lady Superintendent, the professors and the students themselves are indeed to be congratulated ; for between them they have created an institution whose true attractiveness must appeal to many who would fain be students there, but who have still to lament barriers that soon, let us hope, will be cleared away.

The best guarantee of the future is the exceeding prosperity of the women's colleges in Madras, for example, which have so large a population to draw upon that their accommodation is already inadequate. The Principal of the Government College is actually becoming alarmed at the growing numbers, fears crowding of classes and lessened efficiency, and suggests the limiting of admission. This suggestion has been overruled by the Director of Public Instruction, who rightly holds that nothing can justify the exclusion of women-students who are fit for the course. It is a very cheerful state of affairs, and marks an incredible amount of progress upon the conditions of a very few years ago. And one of the most cheerful features of this work is the excellence of its academic results. 30 passes and 6 first-classes among 32 candidates for the Intermediate examination, and second and third places

in the Presidency. 7 passes, for 8 candidates, in the B.A. degree examination. And in games the College won every tournament for which it entered. The prospects before our own Maharani's College are not less bright, so long as we follow the Madras University in retaining identity of men's and women's courses; that is, so long as we maintain the resolve to give real *university education* to women.

**THE NEEDS OF THE UNIVERSITY: PUBLIC RESPONSIBILITY.**—The expenditure of the University steadily increases, and yet there is not a department of it that does not feel the pinch of poverty. It is not merely that absolutely necessary extensions—such as the establishment of a medical college—are postponed perennially for lack of funds; but that the ordinary work already undertaken by the University is hampered, and its natural, inevitable growth stunted, because sufficient funds are not to be had. Government gives all that it can, with due regard to other demands. It is with the public that the responsibility lies. There have been many most generous gifts; but the attitude of many citizens has been that of criticism, which is easy and frequently ungenerous, and not that of goodwill and patriotism. Vigorous and successful begging is a new and striking feature of the university activity of these post-war days. For a long time certain American universities have had regular and permanent advertising departments, and recently even English universities have been employing publicity experts to seek much needed funds. Liverpool University, for example, started on the quest for £1,000,000, and apparently is very well on the way towards getting it; and success has overwhelmed sentimental objections. In Mysore we scarcely want to proceed on these lines, and there is ample opportunity for public awareness of the University's deserts, and its needs. An exceedingly attractive and practical idea was suggested by the Vice-Chancellor—that the prosperous and generous in the separate districts should unite in endowments. “Can we not hope to see, let me say, a Senate House, presented by the citizens of the Mysore City or of Mysore District? Why should we not have a chair of what you will, be it Biology, or Geology, or History, or Philosophy, or Sanskrit, founded and endowed by the citizens of Shimoga—a Tumkur Professor of this, a Kolar Professor of that, a Chitaldrug Professor of the other?” There is another aspect of this matter. A University that is mainly supported by Government must be subject, even in some detail, to Government control. This cannot be complained of: Government is responsible for the use of money

acquired by taxation, and cannot in these circumstances give either to the University itself that freedom which is in itself desirable, or to the citizens that voice in University policy which they might wish to have. The more independent the University becomes financially, the more independent will it become otherwise—with an independence that Government would be glad to foster.

**THE GRADUATES.**—In the concluding part of his address, the Vice-Chancellor exhorted the graduates to “service,” and indicated that for most of them the clearest path of service was that of teaching. But since the Fergussonian idea is more honoured in speech than in practice, he referred also to “rewards,” and expressed the opinion (while professorial senators bent forward eagerly to hear) that “in a few years’ time the educational service of the State will present as many attractions to its members as any branch of the administration, and at least equal opportunities for rising to the highest positions, and that not only in their own profession but also in the councils of the State.” This, of course, has always been the dream of the “teacher”; and his conviction has always been that the truly prompt, decisive, all-dominating and all-placating man of action has been lost in him. But let us take the Vice-Chancellor’s prophecy seriously, for it is merely just: these things should be, and time will bring them. But alas! for the present the Vice-Chancellor’s prompt re-transition to the idea of “sacrifice” was simply a return to facts. Yet to facts that have their inspiration. The doctrine, as he said, was a hard one; but, let us hope, not too hard either for our graduates or for the rest of us,—“Can you live for the good that you can do rather than for the good that you can get? Seek ye first the service of others, and all these things shall be added unto you.”

**“NATIONAL EDUCATION.”**—We have referred to the poor teacher’s conviction that the land has lost in him the incomparable administrator. That is just a harmless piece of consolatory conceit. Not so harmless is the conceit of politicians with regard to education. Scarcely a man of them but conceives himself an educationist who has transcended teaching but knows instinctively all about it. He marvels at its inefficiency in less capable hands, and at the stupidity—or malevolence—of all schemes for it. He is a practical man, and withal a knower of men; and his leisure moments suffice him for the damning of all existent

order and the propounding of things anew. One marvels at this, with increasing wonder at human pachydermatism.

Politicians in India have always had very much to say about education, but never so much as now. The cry is, "National education," and it is, as a rule, the utterance of a political, not an educational enthusiasm. This is clear enough from the faint attempts that have been made to adumbrate the meaning of the phrase, as well as from the nature of the indictments of the present system or systems. Education always has implied, always will imply, certain things inevitably grievous. Hard work is one of them, and discipline for the undisciplined another; nor is there, whatever be one's hatred for examinations and for their comparative neglect of the individual, any possible means of their abolition. Further, whenever a large body of people is to be educated, there must be training on fixed lines and towards a certain defined end, with appointed tutoring in appointed places. Here lies a constant possibility of hardship, even of unfitness, but in no country, at no time, has it been possible to avoid this. Nor is such uniform stringency without its own compensations. It is only too easy to provide false analogies, such as that in Rabindranath's delightful parable, "The Parrot's Training." To leave the bird singing, hopping from bough to bough, innocent of recitation and of manners is well. That is what should be done with it, for it should not be "trained" at all. The boy is to be trained, and the simple fact is that there must be some kind of caging. Now, a very usual method with "national education" enthusiasts is not to oppose a new and defined system to an outworn one, but to add to particular defects all the "ardours and endurances" of education and forswear them. "That," they say, "is what you have been tolerating, to your undoing; we shall give you perfect freedom, and put flowers for stones in your path." But this is what no man can do for another.

There are some, however, who are less vague and indolent in their theories and who sincerely cherish the desire for a type of education better adapted than the present to Indian ways of thought and feeling; and they level against the present methods the well-justified charge that they make, perhaps, a clerk or a scholar, but not an Indian citizen. This is profoundly and sadly true: it has resulted from the history of the country and of education therein, and the thing is to be remedied, for it is a terrible evil. It is not a remedy, however, to give a false analysis of causes. How often does one hear that clerks were required and therefore clerks were created, and thus all education was made, and has remained, clerkly. And in the very same breath the critic will attack the system because it is "too literary," and does not concentrate on

providing the practical equipment of the clerk ! There are so many people in the world that want to have things both ways. From the beginning the universities of India have held up a high ideal of culture, and have sought to *educate* their alumni. They have never made clerks, and they are incapable of making good ones. It has been their misfortune that a very large proportion of their graduates have betaken themselves to clerking, because they had nothing else to betake themselves to, but it is entirely unjust to suggest that the university courses have been framed to produce a particular clerky fitness. The graduate who becomes a clerk may have received from his university much that is of general value to him, in any walk of life, but the particular clerky virtues he has had to seek after his graduation. They have not intruded on, and limited, as so often is suggested, the purposes of the universities. That is why there are so many failures in the university on the part of people whose fitness is merely for clerking, not at all for such culture as university education imparts. Culture, then, having been the aim from the beginning, we have to ask whether it has been the right sort of culture, and whether it has been fostered in the right way. These are the real points at issue, and this is where the phrase "national education," if we can interpret it aright, will lead us to much needed reform.

What, then, is "national education?" We must remember the wise caution of our first Vice-Chancellor that culture is cosmopolitan and timeless, an inheritance to be shared in common by all nations. Yet it takes its bent from place and time, and is infinitely subtle in its relationship to the subtly-varying attitudes of different races. Sophoclean tragedy is a priceless possession to all men, yet it was one thing to a Greek, and is another to an Englishman, and quite another to an Indian. We are deep rooted in the past each of his own land, and our minds are tempered by the breath we draw daily. To each of us there is an air in which we are at home. Any alien gift is valued by the place it takes and the sheen it gives when we place it in the room that holds our own treasures. In educating the young men of India we have indeed forgotten this; and the means of culture has been not merely the language of another people but the processes, the settings, the backgrounds of its thought. Hence a constant restlessness in the most responsive minds—the irritation of partial understanding, the chafing against grooves that do not quite fit. The furniture of the mind is ill-assorted, for the old treasures that are its fittest adornments will not, and must not, be removed, nor will they quite harmonise with the new. Thus the new treasures are, as it were, simply given storage room: they are given no place in the scheme, they are not valued, and time and again they are cast out.

But the remedy is not to exclude them. No educational scheme in India can ever afford, now, to treat western literature and philosophy with even comparative neglect—still less to exclude them, as the hottest enthusiasts desire. A strangely fascinating opportunity is provided, at the present moment, to the moulder of educational ideas in India—an opportunity that is open to no other country, not to England herself. Could but the power of eastern culture exert over western countries an influence comparable to that which the culture of the west has exerted here, it would mean much to them, tranquillising and harmonising the mind and recalling it to that which is imperishable. But it is only in India that there is the opportunity, provided by the strong influx of western culture, for the blending of eastern and western ideas into what may well become a world-culture. And it is eminently possible—though the world of education has seldom known so hard and complicated a problem—to devise university courses that will train the Indian mind on the lines of its natural development, and bring into relation with what it instinctively understands the best in western culture. It will be desirable, for instance, in studying the masterpieces of western literature, to relate both its forms and its ideas to those of the literature native to this soil, for thus alone can there be due comprehension, and that relation to the reader's own thought, emotion and life without which the study of literature is futile. It can be done, though the process of modifying curricula cannot be completed in a day. The greatest of mistakes would be to throw over the old and await the fully developed new, for the only way in which the new can be created is by means of a gradual, purposeful change. But the beginnings need not await any sort of legislating. It is the part of the teacher to remember (in his interpretation of literature, for example) the corresponding yet profoundly contrasted utterances of the eastern genius, and to seek mutual illumination in the noblest works of east and west.

The great danger of many current schemes for national education in India is incidental to any scheme that seeks to work by exclusion. It is the danger of narrowness and of isolation. We find people proclaiming at one moment India's claim, which we all recognise, to play a more and more conspicuous part both in imperial and in international relationships, and the next moment commanding, as the educational ideal, limitation to a culture in itself of the noblest, which ought, perhaps, to be the dominating element in future education here, but which, unsupplemented, would be no medium of relationship, either within or without the country, in matters industrial, mercantile and political. Even if we accept all we read about the scope and stability

of India's foreign relationships in the distant past, it is obvious enough that these have no correspondence with modern conditions, and that to insure India's taking her rightful place in world-affairs a much more cosmopolitan culture is required than that of her venerated past. The difficulty will lie in maintaining the distinctively Indian mentality, which it would be ruinous to lose, while at the same time adapting it to the exigencies of the modern world. No one would deny the need for an infusion of strenuousness and a development of the already revealed capacity for steady united action. The practical side of life has to be developed, while at the same time it has to be prevented from dominating life.

A further danger, inherent in the noble and insufficiently supported effort to foster vernacular literature, lies in the disposition to minimise the importance of spreading as widely as possible an accurate practical knowledge of the English language. It is of course the only medium at present available either for outside communication or for inter-communication between the various parts of India ; and its potency as a uniting power goes much further than its merely commercial or political uses. Further, the English language is steadily increasing in world-importance, and may well become, at no distant date, the recognised medium for all international communication. In an interesting memorandum communicated to the Northern Peace Union of Stockholm, Dr. I. J. S. Taraporevala, Professor of Sanscrit and Comparative Philology in Calcutta University, has worked out the reasons for this probability—the principal of these being the number, and wide dissemination, of those that speak it, its commercial and political importance, the fact that its vocabulary "has been enriched by foreign elements to a far greater extent than that of any other European language," and its comparative simplicity of structure. He believes that "the pressing needs of rapid international communication will mould the language towards still greater simplicity and will import foreign words in larger numbers yet, till it will become one day the truly international world language." As for communication within India, Professor Taraporevala's view of the future is interesting. Urdu was once, in a sense, a common language, and the later antagonism between Urdu and Hindi is artificial, and "is bound to die out as the peoples unite closer together. The common language of India is to be neither the Sanscritised Hindi of the pandits of Kashi nor the Arabicised Urdu of the moulavis of Lucknow, but it will be a language having a vocabulary borrowed from both Sanscrit and Arabic ; and just because united India embodies the Hindu-Islamic culture, its

language also shall symbolise this Hindu-Moslem unity." Thus the common tongue, he thinks, will be Hindustani. Yet he believes that "not only for international but even for our national purposes English will have to be used in larger and larger measure. . . . For all important aspects of our national life English will have to be used." It is important to view this language matter without prejudice, for the country stands to lose incalculably by any over-riding of the claims of English.

**SOCIAL SERVICE.**—The address delivered by Mr. C. R. Reddy as President of the South Indian Social Service Conference, held this month in Madras, contains many points of interest. A clear and useful distinction was made between social reform and social service. Both seek to promote social welfare, but the task of the former is to bring about right conditions within a nation's life, while that of the latter is to deal with "irrational factors," with "unforeseen crises and calamities," in fact with all that escapes legislative adjustment. It should be added, however, that since there are few countries, if any, in which any satisfactory national control exists with regard to the great matters of social welfare, and since betterment on these lines is necessarily very slow, social service will long have to bear most of the burden. Mr. Reddy laid stress upon the state's obligations to organise all branches of reform and of charitable help; and also upon the special obligations of the universities. He gave instances to show how British and continental universities had already shouldered this burden, instituting chairs in social organisation, comparative administration and so on, and promoting extension work directly related to social problems. He desired that in Indian universities chairs of comparative legislation and of comparative administration should be established. The question is whether the promotion of such studies in our universities would produce any practical result. What is needed above all else is the arousing of energy by bringing home to men the poignancy of need, the joy of service, and the primacy of the command to love one's neighbour. Ready to the hand of every citizen there are numbers of social service duties for the performance of which he has ample knowledge, but, as a rule, not nearly enough self-sacrifice. Nor is it realised that in that neglected imperative are united the voices of self-respect, religion and patriotism.

In the eloquent sentences with which his address concluded Mr. Reddy pointed out how concrete, how pure, how spiritual, was this

social reform task. He did not exalt it above political work, which of course, at the present time is second in importance to no other patriotic activity. But he had no patience with those whose patriotism was solely political, and expressed itself in a mere vapour of enthusiasm. Social service "affords most valuable discipline for youth, involving self-criticism, self-control and high ideals combined with severest practicality. . . . Mere politics cannot constitute either the fullest or the best life. Social service is the test of our spirituality, of the great truth and grand morals of our religion and civilization." Would that each political orator would pause for a moment and apply to himself this test at once of spirituality and of patriotism ! If he cannot pass it he has no right to open his lips at all.

**THE KARNATAK EDUCATION SOCIETY.**—We have received, and read with special interest, the first issue of the Karnatak Education Society's College Magazine, that of October. The noble work of this and other societies established for the promotion of education by private generosity lends point to Sir Leslie Miller's appeal for more liberal private support of our own university. One of the most energetic and successful of such societies is the Sarvajanik Education Society of Surat, which has raised its college, very soon after its inception, to a first grade college, and which has been greatly encouraged by a donation of two lakhs from a patriotic citizen. The Karnatak Society secured, early this year, the affiliation of its college in Dharwar, which, under the principalship of Mr. P. S. Katti, a senior wrangler, has already established itself as a healthy and vigorous institution. As in the Fergusson College, he and a number of the other members of the staff are content with a "living wage," sharing the patriotic and devoted spirit of the Society. The staff is a good one if we may judge from the fact that one of its most recently added members is Mr. M. K. Venkatarama Iyer, M.A., one of our own most brilliant graduates. It is only two years since a government college was established at Dharwar, and for this reason the Bombay University hesitated for some time before granting the new college affiliation ; but eventually the Senate was nearly unanimous in the view that there was room for both. The wisdom of this decision is indicated by the fact that students from all parts of the Karnatak gathered for admission to the new college—so many that careful selection was possible and many had to be refused admission. The college is a very small one, and the principal and his staff are able to make a point of close and constant association with the students ; there is an excellent

hostel, helped in various ways by various generous citizens ; and there are already a well-equipped reading room, a flourishing gymkhana, and, above all, an energetic "Debating Union." Closely associated with the college is the Karnatak Students' Brotherhood, which has been in existence for three years and is devoted largely to the fostering of the study of the Kannada language and literature, and the history and culture of the Karnatak. This is done by arranging a large number of lectures, by the circulation of books, by transacting its own business in the vernacular, and by holding debates in the Kannada language. This effort ought to find warm co-operation in Mysore. The brotherhood is strenuous also in social service : its members did much good work at the time of the influenza epidemic and conduct a successful school for the education of adults of the depressed classes.

The magazine is excellent : we have never seen a better college magazine.

**THE TAGORE TYPE OF PLAY.**—Some admirable papers have been read by members at the literary meetings of the University Union. One of the best—that on *The King of the Dark Chamber*—is being printed in this Magazine ; and we have no hesitation in saying that this Union paper is a contribution of much value to the study of Rabindranath Tagore's work. It is a curious and interesting comment upon the type of play represented by *The King of the Dark Chamber* that, when one is dividing between two issues of a magazine an essay on the play, one finds the whole of the first instalment an exposition of philosophical principles. How absurd, even were it possible, would it be to treat Shakespeare, or any lesser western dramatist, like this ! Yet it is the right way to deal with this play, and a natural and permissible way to deal with any Tagore play, though of course this one is more thoroughly impregnated with philosophical conceptions than any other. Here is suggested a radical difference between Indian and western drama (not to say between Indian and western thought), and we may supplement Mr. Venkata Rao's paper by some remarks upon this.

In thinking of the plays of Rabindranath Tagore that have been given us in English, we must forsake almost all the dramatic tests which we have been accustomed to apply, whether to Greek or English drama. Rabindranath is the inheritor of the Indian dramatic tradition, and however wide be the gulf between his thought and manner and those of the great Sanskrit dramatists of the past, yet his plays, taken as plays, are in the direct line of descent from

theirs. The aims and characteristics of Indian Drama are vastly different from those of the drama of the west. In the one, as in the other, scrupulous fidelity to human nature is to be found, and profound delight also, in exquisite images, exquisite verse and phrase. But one might almost say that here the correspondence ends.

We are accustomed to think of drama as a mirroring of life by one who, besides having thought profoundly about life, looks with the keenest delight upon every aspect of it. The dramatist, we consider, is in love with life—with its movement, its variety, its contradictions whether seen from the humorous or the tragic point of view, its impulse and its joy, its mystery, its sadness. He finds it his business to present this life in little, and his prime aim in that presentation is simply faithfulness. It is not—so we say in the west—his concern to explain it by the application of any philosophic theory. As to the value of life, its meaning, its goal, different minds may form different judgments. The dramatist, with his keen vision and his power of true and vivid presentation, gives us the material for our judgments but does not impose his own upon us, being careful, rather, to remain in the background, leaving us to the undistracted vision of life as it is. The philosopher may theorise, the lyricist may utter his personal feeling or aspiration, but the dramatist must simply *represent*.

In India the case has been altogether different. The Indian dramatist too knows the delight of life. But he conceives that in his philosophy, in his religion, he holds the key to its meaning. This has several results. First, it means that his personality is much more prominent in his work. His task is not merely to mirror life, but, in the light of his intimate religious knowledge, to interpret it. Naturally such drama tends to become lyrical, for the poet, being now interpreter, will seek expression for the sorrow and the rapture that this interpretive vision arouses in his own heart. He cannot represent life's contradictions without revealing the truth that, to his mind, reconciles them. He has solved life's problems, and cannot but offer his solution. Western drama reveals its greatest power in the presentation of conflict, but a conflict ceases to absorb the dramatist who has arrived at its full reconciliation. The conflict will always be present, but the certainty of reconciliation will be felt from the beginning. This means the loss of one kind of dramatic power and the gain of another. Again, the idea of God, and of man's relation to him, is so prominent in Indian drama that, to a certain extent, it loses that interest in the human for the human's sake that means so much in western drama. When the religion that moulds all the thoughts of a dramatist insists that absorption in the

divine is man's highest hope, and the subduing of desire his prime virtue, that dramatist will not give us such studies, say, of human love and ambition as are among the most potent things in Shakespeare. The strife of mortal with mortal will not interest one to whom man's relation to God is everything; and contrast of individual with individual will appear of less moment than the judging of character by an ideal standard. Ups and downs of worldly fortune will mean little in a play deliberately devoted to nobler fortunes and relationships. It is no wonder, then, that Indian drama knows no tragedy in our sense of the word.

Another thoroughly eastern element in Tagore's plays is their symbolism—a very disturbing thing in drama, and, on the whole, an undramatic thing. In these plays there is always something of this element, and sometimes it is the essence of the play, as in the case of *The King of the Dark Chamber*.

Here the symbolism is perhaps less clear than symbolism should be, even in a play of this kind. Certainly a stage performance of the play, while it might produce the desired general impression, would leave too much puzzlement behind it for proper dramatic effect. Symbolical drama can never be of more than secondary value, and one does not demand of it the sharpness of outline of the ordinary play. Mystic indefiniteness is permitted to it, for its suggestiveness depends upon this. But it should not leave us knitting our brows over alternative theories of interpretation; and no expounding of it should be required.

Its symbolism is essential to *The King of the Dark Chamber*. Of many of the most excellent works of symbolic import, such as *The Pilgrim's Progress* and certain of the plays of Ibsen, it may be said that you can take away the symbolic meaning and they remain living, arresting, convincing works of art. William Archer speaks of a "fundamental principle which Ibsen over and over again emphatically expressed—namely, that any symbolism his work might be found to contain was entirely incidental, and subordinate to the truth and consistency of his picture of life." We think that, east or west, this is a right dramatic principle. Now, there are many separate episodes and dialogues in this play where you can thus abstract the symbolism, but the play as a whole cannot stand without it.

The progress of the scenes is towards a mystic end, and is always felt to be so. The presence of the hidden King can never quite be put by. The poet, with his lyricising mood of interpretation, cannot let his human people be. Hence the spectator, even the reader, is always on the strain, always in quest of an interpretation that is hard to find. It is impossible to avert such insistent and profane questions as : "Who is

the King of the Dark Chamber ? Who is his Queen ? Who are the lesser Kings, and where lies the boundary between their lands and his ? Who is Grandfather ? And what, or how many things, is the Dark Chamber ? ”

Now it cannot be denied for a moment that most of the persons are—whatever else they may be—living human beings, who, without any individualising subtleties, are clear and convincing enough. Whatever Sudharsana may “represent,” she is in herself both woman and queen. “Grandfather” is at least an old man, gentle and kindly and joyous, who has discovered the wine of life and drinks deep draughts of it every day, who has entered upon the path of inalienable happiness, and has the true wayfarer’s instinct for the uplifting and guiding of travellers less wise and strenuous. The citizens speak as citizens will. Kanchi is bold, sceptical, able, contemptuous, downright in resisting or in yielding—quite a convincing human type. But in this play these things are felt to be secondary. So many kings, such mysterious kingdoms, so strange a festival, a battle so decisive yet unseen—one is conscious that if the symbolic meaning is not apprehended everything is lost.

We must decide, then, what is the prime symbolic idea of the play, the key to its mystic interpretation. The King of the Dark Chamber is immediately known to be God—God who is defied by men and is hard to be understood of them, but who yet is incessantly needed and incessantly sought by them, whether their search be deliberate or not. Sudharsana, the King’s bride, is the play’s chief seeker after God. Her severance from her King, her gradual understanding that the way of the most utterly humble submission is the only way to his presence, suggests the experience of the needy human soul—aspiring, clamant, arrogant at first in its individuality, but at length humbled into knowledge. It may be that the other kings represent the mind and the passions. Certainly it seems as if Kanchi were the pride of mental prowess, instinct with courage and self-confidence, contemptuously domineering over the lesser kings, until at length he is vanquished by the Incomprehensible, and finds happiness in surrender and the following of that same humble path. But what of the Dark Chamber, in which alone the King can be intimately known ? It is near the truth, but is not quite the truth, to say, that the Dark Chamber represents the inmost heart of man. The figure does indeed bear the suggestion that divine impulse and divine teaching can come to him alone who is fit for solitude, who can retire within himself and “listen and receive.” “In many a morning and eve thy footsteps have been heard and thy messenger has come within my heart and called me in secret.” “He it is, the innermost one, who awakens my being with his deep hidden

touches." But the Dark Chamber symbol is of less limited import than this. It suggests also the incomprehensibility of God to the mind of man. And it represents further the idea expressed in the saying of the Hebrews, "No man can look upon God and live,"—the idea that the unprepared human sight could not bear the terror of his look. "Have I not told you before," says the King to Sudharsana, "that one cannot bear my sight unless one is already prepared for me? One would want to run away from me to the ends of the earth." And finally, there is one more suggestion, that just as that chamber, which to Sudharsana is but the blackness of darkness, is all light to the King, so that thickest darkness known to us, the darkness of death, is as light to him and to those who have attained knowledge of him.

There is no absurdity in finding in a single image suggestions so various. One must understand the peculiar nature of this sort of symbolism. Tagore's symbols cannot be defined and analysed. They are not equivalents of something symbolised, and therefore they elude the limits set by words that would define a correspondence. They are of the type of music, whose import defies any sort of verbal expression, and is the more subtly true thereby. The Rabindranath symbol represents a truth so central that words may reveal this aspect of it, or that, but can never express the whole. He is dealing, as it were, less with life's definite fabrics than with the stuff of which life is made; and his symbolism is a method, incomparably superior to any literal method, of revealing the unity of life. Light—darkness—there is no figure that is closer to the heart of things. And this play is not a translation into symbolic language of truth that is first literally conceived. It is a process of thinking, and apprehending, in symbols. Of course, this is injurious dramatically. Such work is best judged as poetry, lyrical in its nature though dramatic in form. Some of Tagore's plays act excellently, but a stage-presentation of *The King of the Dark Chamber* could not succeed except (and this is what no dramatist must demand) with an audience that had already studied the play. And while we must allow symbolism its place in Indian drama, we would contend that the *universal* quality of drama, namely its capacity to impress itself upon an audience in a theatre, demands (1) that where symbolism is present its place shall be such that the play is duly significant without it, and (2) that the symbolism itself shall be interpretable by the enlightened spectator from moment to moment during the play's performance.

## FROM HUME TO GREEN.

### III. INDIVIDUALISM—ADAM SMITH.

It has justly been said that in Greece man felt himself for the first time conscious of his own true nature as a free, rational personality. The city state absorbed his best energies and in its service he found his truest freedom. Its greatest thinkers taught that the state is an expression of the moral life of man and that it is only as a member of the commonwealth that he can attain ethical perfection. The civilization, however, of ancient Greece had one serious defect, which was of course not peculiar to it. It rested on the basis of slavery. Aristotle's defence of slavery is well known. It was essential for the realization of the "good life" by the citizen. Again nature herself had intended all barbarians, that is all Non-Hellenes, to be slaves, and a war undertaken to reduce them to slavery was perfectly legitimate. It is, however, fair to remember that the slavery which Aristotle defends is an ideal slavery which pre-supposes moral and intellectual superiority in the master, and that it ceases to be just in the absence of such superiority. Aristotle again declares himself in favour of the substitution of serfs for slaves in agriculture, and he also recommends that the hope of freedom should be held out to the slaves as a reward for good conduct. On the whole, however, Aristotle was not inclined to depart greatly from the general practice of Greece in regard to slavery, and it was reserved for the Stoics, perhaps the most influential school of antiquity, to teach, with an impressiveness that has seldom been surpassed, that man is, in his deepest nature, at one with his fellows and that the only rational basis on which social and political institutions can be safely reconstructed is the unity and equality of mankind.

The central idea of the Stoics was that man should live in harmony with nature. The whole universe is an expression of the divine reason, which is ultimately identical with God, for in Greek philosophy the words reason and spirit cover the same ground. The divine spirit manifests itself in a special way in the rational nature of man. It is thus at once his duty and his privilege to understand the divine plan of the world and to order his own life in conformity with it. Since, again, the divine reason manifests itself in all men, every human being is bound by spiritual ties to the community of which he forms a part.

" You are part," says Marcus Aurelius, " of a social whole, a factor necessary to complete the sum: therefore your every action should help to complete the social life. Any action of yours that does not tend, directly or remotely, to this social end dislocates life and infringes its unity. It is an act of sedition, and like some separatist doing what he can to break away from civic accord." According to the same authority, when a man contributes to the common good he thereby fulfils the law of his being and comes by his own. The social side of the Stoic teaching culminates in the doctrine of world citizenship for which Socrates had prepared the way. In noble words Cicero anticipates a time when " there will not be one law at Rome and another at Athens, one law to-day and another law to-morrow, but the same law everlasting and unchangeable will bind all nations at all times, and there will be one common Master and Ruler of all, even God, the framer, the arbitrator, and the proposer of this law. And he who will not obey it will be an exile from himself, and . . . will, by virtue of that very act, suffer the greatest of all penalties, even though he shall have escaped all other punishments which can be imagined." (J. Adam: *Vitality of Platonism.*)

This fortifying philosophy formed the chief spiritual support of the noblest minds during the dark days of the Imperial tyranny. It presided over the development of Roman Law, and helped a series of illustrious jurists to formulate a comprehensive system of individual rights. With the revived study of Roman Law, from the 12th century onwards, the conception of the law of nature came again into prominence, and even an influential theologian like Aquinas does not hesitate to maintain the supremacy of natural over state law. Grotius applied it to international relations, and made it the basis of his great doctrine that states, like individuals, should be regarded as moral persons, bound to one other by mutual rights and obligations. His famous work became the principal medium through which the conception of the law of nature came to influence modern ethical and political speculation. Locke borrowed it from Grotius and founded on it his political individualism, which he passed on to Rousseau and the fathers of the American republic. What modern democracy owes to Rousseau is well known. It is worth recording that while Hume awakened Kant from his philosophic slumber, the writings of Rousseau awakened him from his political slumber. " There was a time," said the illustrious philosopher, " when I believed that knowledge constituted the worth of man, and I despised the ignorant masses, but Rousseau set me right. I learned to honour men, and I should feel myself of far less use than the artisan if

I did not believe that my reflections would aid in restoring the rights of humanity." (Gooch: *Germany and the French Revolution*.)

Locke was also the inspirer of a remarkable group of French thinkers, the Physiocrats of the 18th century, who are not as well known as they deserve to be. In the 18th century, France was the land of "ancient abuses and new theories." Voltaire, Rousseau and the Encyclopaedists represented the new ideas in politics and religion. The Physiocrats represented the new ideas in economics. The Physiocrats taught that social phenomena are subject to laws and consequently a fit subject for scientific study. They exposed the fallacy of the mercantile doctrine that money is identical with wealth. They emphasized the national importance of agriculture, though they went too far in insisting that agriculture is not merely the principal, but the only, source of wealth. The practical effect of the teaching was seen in the series of beneficent reforms initiated by Turgot as Intendant of Limoges. Above all, they asserted and vindicated the principle of industrial freedom at a time when the "fury of governing," which one of their leaders, the elder Mirabeau, described as the worst malady of modern states, had crushed all life out of industry and ruined agriculture.

The economic individualism of the Physiocrats was, however, based not merely on practical considerations. It had an underlying quasi-philosophical foundation. Like the Stoics, the Physiocrats believed that the universe is pervaded by uniform laws, and, writing before the days of biology, which has made us so familiar with the struggle for existence, they further insisted that these laws have been ordained by Providence for the happiness of men. It is the undoubted natural right of every human being to do that which is advantageous to him. Nature has, however, destined him for social life, and this natural right is therefore limited by the consideration that he should respect the same right in others. In other words what a man is entitled to claim as his birth-right is social liberty. Since again the right to liberty would be useless without the means of exercising it, it involves, as its corollary, right to property. The enforcement of these rights requires the intervention of the state. Thus government is a necessary evil, and its powers should be limited to maintaining security of person and property.

The Physiocrats are chiefly interesting to us for the influence they exercised on Adam Smith, who became acquainted with their doctrines in his tour in France. The particular attention which Adam Smith pays to the problem of distribution in his book was due to the

influence of the Physiocrats, and he also owed to them the distinction between value in use and value in exchange. More than all, he was deeply impressed with their powerful plea for economic liberty, and expressly commends them for teaching that perfect liberty is the only expedient for rendering a nation rich and prosperous. It must, however, be admitted that to a certain extent, as we shall see later on, the *a priori* speculations of the Physiocratic School had an injurious effect on Adam Smith's political philosophy in leading him to lay undue stress on the identification of individual with national interest.

Adam Smith, however, owed a deeper debt to Montesquieu, who first introduced the comparative method in the study of social institutions and thus made possible the conception of the science of history. Under the influence of this teacher of teachers, Adam Smith traced in his lectures on justice the gradual progress of jurisprudence from the earliest years and pointed out how economic circumstances contributed to the improvement of laws and government. It is even said that in his later years he contemplated the preparation of a commentary on Montesquieu's chief work, "The Spirit of Laws." It is no exaggeration to say that all that is permanently valuable in "The Wealth of Nations," its appeal to facts, its wide generalizations from history and experience, its statesmanly recognition of the qualifications required in applying principles to practice, its sanity and breadth of view, can be traced to the influence exercised on its author by "The Spirit of Laws." In the true spirit of Burke, with whom he has much in common, Adam Smith writes, "The man whose public spirit is prompted altogether by humanity and benevolence will respect the established powers and privileges even of individuals, and still more those of the great orders and societies into which the state is divided. Though he should consider some of these as in some measure abusive, he will content himself with moderating what he often cannot annihilate without great violence . . . Like Solon, when he cannot establish the best system of laws, he will endeavour to establish the best that the people can bear." He ridicules "the man of system who seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess board, but forgets that, in the great chess board of human society, every single piece has a principle of motion of its own, and that if this is not taken account of the game of human society will go on miserably." Quesnay, "a physician, and a speculative physician," thought that a political body could thrive only under a system of perfect liberty and perfect justice. Adam Smith makes the incisive comment that if this were so no nation on earth could ever

have prospered, and that the wisdom of nature has fortunately made ample provision for remedying the bad effects of the folly and injustice of man. Though he talks lightly of human legislators, he recognizes the supreme importance of the state and writes eloquently on the duties of citizenship. The state or sovereignty in which we have been born and educated, and under the protection of which we continue to live, is the highest institution. All the objects of our affections, our intimate relations, friends and benefactors, all those whom we naturally love and revere, are comprehended within it. We love our country not merely as part of the great society of mankind but for its own sake. This love of a man's country involves two principles, "first, a certain respect and reverence for that constitution or form of government that is actually established, and secondly, an earnest desire to render the condition of our fellow-citizens as safe, respectable, and happy as he can. He is not a citizen who is not disposed to respect the laws and obey the civil magistrate; and he is certainly not a citizen who does not wish to promote, by every means in his power, the welfare of the whole society of his fellow-citizens."

With all this appreciation of the state and its mission, Adam Smith never shows the slightest inclination unduly to exalt its functions. The legitimate functions of the state according to him are:—the protection of the society against other societies; the securing of justice between man and man within the community itself; and the construction and maintenance of such public works as are too great for individuals and yet necessary to the community. He also recognizes that the education of its citizens is one of the chief duties of government, and insists that a school should be established in every parish at a cost so moderate that even a common labourer should be able to profit by it.

Adam Smith was, however, a convinced advocate of the policy of non-intervention by the state in industrial matters. His objection to government interference with industry was based, in the first place, on the healthy recognition of the fact that individual effort is the main-spring of all social progress. "The natural effort," he says, "of every individual to better his own condition, when suffered to exert itself with freedom and security, is so powerful a principle, that it is alone, and without any assistance, not only capable of carrying on the society to wealth and prosperity, but of surmounting a hundred impudent obstructions with which the folly of human laws too often encumbers its operations." This consciousness of the value of individual effort was further supported by the dominant political idea of the time, the idea of emancipation. The conception of civil and religious liberty, which

played such an important part in the seventeenth century, had in the eighteenth century taken the form of the liberation of human effort in all directions, and Adam Smith gives eloquent expression to this idea in his book. As Toynbee says, every page of Adam Smith's writings is illumined by one great passion—the passion for freedom.

The circumstances of the time also brought home to Adam Smith the paramount need for economic liberty. How in the England of his time vexatious restrictions interfered with freedom of labour and industry is a familiar tale. A workman was not allowed to practise any handicraft till he had served a period of apprenticeship under an approved master. He was not free to move about from one district to another. Combinations among workmen were forbidden. No one was permitted to follow any trade without a licence from one of the corporations. James Watt, the greatest mechanical genius of the time, was refused permission by the "hammermen" of Glasgow to practise his trade, and it was through the exertions of Adam Smith that he was allowed to set up his workshop within the University buildings. It is no wonder that the spirit of monopoly never failed to rouse keen indignation in Adam Smith. His criticism of the East India Company is not without interest at the present day. It combined two functions, the functions of governing and trading, which are incompatible with one another. It is to the interest of a sovereign that revenue should increase as much as possible, but a company of merchants entrusted with sovereign powers will make all government subservient to the maintenance of trade monopoly. Again, individual merchants, 10,000 miles away from home cannot be expected to resist the temptation of trading on their own account, and it would be idle to suppose that this will not lead to oppression. And lastly, from the nature of their situation the merchants will support their own interest against that of the country which they are sent to govern. "It is a very singular government in which every member of the administration wishes to get out of the country as soon as he can, and to whose interest, the day after he has left it and carried his whole fortune with him, it is perfectly indifferent, though the whole country was swallowed up by an earth-quake. Such exclusive companies, therefore, are nuisances, in every respect; always more or less inconvenient to the countries in which they are established, and destructive to those which have the misfortune to fall under their government." It need hardly be said that Adam Smith is less than just to the great company, and that he wrote before the days of men like Munro, Elphinstone and Colebrooke who shed lustre on its history and achievements.

Adam Smith's criticism is mainly directed against the commercial policy followed by England towards her colonies. The colonies were regarded merely as markets for the mother country. They were not allowed to export or import in any but British vessels, nor were they permitted to start their own manufactures. The woollen manufacture was forbidden on the express ground that it would inevitably sink the value of land in England. The House of Commons passed a measure declaring that none of the colonies should manufacture iron of any kind. This measure raised such a warm opposition that it was dropped. When the colonists began to make hats, Parliament passed a law forbidding the exportation of American hats, not only to foreign countries and the mother country, but even from one colony to another. It was this "baleful spirit of commerce that wished to govern great nations on the maxims of the counter" that invited the bitter criticism of Adam Smith, who had no difficulty in showing how contrary such restrictions were to the liberty of the subject of which Englishmen professed to be so very jealous, and how they brought neither revenue proportionate to expenditure nor accession of military strength to the mother country. It is well known that the antagonism of interests created by the commercial policy of England was the main cause that ultimately led to the Declaration of Independence by the American colonies.

One other source of Adam Smith's economic individualism remains to be noted, his belief in the Code of Nature and the harmonious and beneficial order of things which will come into operation when nature is left to herself. This belief came to him from the Stoic philosophers and the Physiocrats. He had an unbounded admiration, we are told, for Zeno and Epictetus, and contrasted the spirit and manhood of their doctrines with the desponding, plaintive, and whining tone of some modern systems. Optimism is the dominant note of his own philosophy, and he has no doubt that the Author of Nature has willed the happiness of men. The desire to better our own condition is a divine instinct implanted in us, and it is the spring of all progress. In pursuing his own interest man is "led by an invisible hand" to promote the public good, which was no part of his intention. The conclusion of the whole matter is this:—"All systems, either of preference or of restraint, therefore, being thus taken away, the obvious and simple system of natural liberty establishes itself of its own accord. Every man, so long as he does not violate the laws of justice, is left perfectly free to pursue his own interest in his own way, and to bring both his industry and capital into competition with those of any other man or order of men."

"An author," says Lecky, "cannot choose what part of his teaching will take root in the minds of his readers. The seed will germinate which suits the soil, and men will often adopt sweeping principles and conclusions, and completely neglect all the qualifications, safeguards, and counterpoises by which they had been elaborately fenced round." Adam Smith wrote on the eve of the Industrial Revolution, which brought into existence the Capitalist *regime*. The captains of industry welcomed the doctrine that it is a law of nature that each individual must be allowed to pursue his interest in his own way, and conveniently ignored Adam Smith's proviso relating to the laws of justice; with what results we shall see in the next article.

N. NARASIMHA MOORTHY.

(*To be continued*).

## GREEK TRAGEDY, AND THE AGAMEMNON OF AESCHYLUS.\*

DRAMA is an imitation, a mirroring, of life. It is not a discourse, or even a description. It is a direct presentation, and its aim is to delude the spectator into the belief that life is enacting itself before his eyes. Life comes at us through all our senses; and drama appeals both to hearing and to sight. Thus it is only in the theatre that it can make its full appeal; and though great drama survives to all generations, the reader can never fully apprehend it.

Life is primarily action, and it is action that drama presents,—not the ordinary, somewhat incoherent action of daily life, but action so elevated, concentrated and focussed as to suggest, by its significant coherence, the dramatist's interpretation of life. Activity is the greatest joy of our own life; and the greater and more varied the activity, the greater the joy. Thus of all the arts drama, which presents human action before us, gives us the profoundest aesthetic pleasure. In our own daily life, we find our chances of the joy of action irritatingly limited, both by circumstance and by our own lack of capacity. But in the theatre we may purge ourselves of our ineffectual, and therefore painful, energy and ambition; for there we can identify ourselves with the very mightiest and noblest action.

The stage is a "little world" in which men act upon each other and upon circumstances, and circumstance acts upon men. Man's conflict with man, and man's conflict with circumstance (or Fate)—this is the matter of drama. From the limits set to man by circumstance and by other men, and his restless, ceaseless striving to overpass these limits, arises the conflict that is the import of his life. Some such conflicts are trivial and amusing, and of these comedy is made. But in tragedy is revealed the stern and mysterious strife that is never ended, the engagement of forces utterly irreconcilable—that conflict in which man confronts his destiny, and is baffled by "the doubtful doom of humankind." Nor is it man and circumstance alone that may be arrayed against the struggling man. A great passage in "Empedocles on Etna" reminds us that not only are lives made dark by the deeds

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of others, but there are lightnings also that will not turn aside to give the just man's virtues room ; Nature, neither friendly nor hostile, sets grim barriers across the way of knowledge or achievement ; and there may, at least, be gods who, whether in sport or in kindly providence, whether in their indifference or in their hate, thwart us for our present evil, even if perchance for our ultimate good.

The view taken of this conflict has varied from dramatist to dramatist and from age to age ; but the dramatist cannot present it without revealing, in the very ordering of his material, his view of its meaning. The great dividing question is this—is it, or is it not, a blind and futile struggle ? It costs blood, and tears and death. Do the blood and tears avail nothing, and is that “death” the final word ? Is man but instrument and victim, or is he, though tortured, overthrown, and slain, yet the invincible arbiter of his own destiny ? The question is one to which no dramatist has ever given a perfectly coherent answer, for the problem is beyond the reach of human wit. But the essential difference of view between Greek and Shakespearean tragedy may be crudely suggested by saying that in the former stress is laid upon man's impotence, and in the latter upon the impregnableness of human virtue. It must be remembered, however, that no Greek dramatist represents man as being *merely* the creature of Fate and that, on the other hand, Shakespeare neither ignores nor explains away the mysterious thwarting forces by which man is surrounded, the inexplicable presence and power of Evil in the universe, the curious disproportion, in human affairs, between desert and happiness.

Before we think of Aeschylus and the “Agamemnon” (the particular dramatist and play that we shall choose to represent Greek tragedy), we must remember that difference in theatrical equipment involves radical differences of type in the dramas themselves. The means of dramatic expression are sound and movement. Sound may be speech or song. Movement includes dancing and gesture. In the vast open-air theatre of Athens, accommodating many thousands of people, where moreover tragedy always preserved its religious and ceremonial function, speech must be slow, measured, stately. Hamlet's advice to the players, “Speak the speech trippingly on the tongue,” would be absurd if addressed to Greek actors, and yet it does suggest the rapid utterance of Elizabethan actors in a small theatre and with a closely surrounding audience. This difference obviously implies a corresponding difference in the type of verse employed for dialogue and in the length of the play, and thus reacts profoundly upon the whole creation. Again, by the very origin of Greek drama, *music and dancing* were the corner-stone of the

play, whereas, in English drama, even music is an incidental which may be dispensed with altogether. Such modern matters of *gesture* as the expression of irresolution by the nervous clasping and unclasping of the fingers would be quite invisible to the Greek spectator. Of all forms of gesture, so to call it, facial expression is the subtlest and most effective. But in the Greek theatre the most exaggerated expressions of agony or of joy would have left the distant audience quite unaffected, and indeed the actor had to use a great fixed coloured mask to make himself distinctively visible at all. Thus the stately and immobile character of Greek tragedy was inevitable; and many a resource of Shakespeare was closed to the Greek tragedian, who on the other hand achieved a certain statuesque grandeur foreign to the Elizabethan stage. This grandeur was heightened by the sternly religious temper of the plays.

Other elements in Greek tragedy, due not to theatrical conditions but to its origin, mark an essential difference. Of these the most important was the Chorus. Its function varied much from dramatist to dramatist, but, broadly speaking, it was this.—The Chorus, both in the songs which accompanied its extraordinarily expressive dancing, and in its dialogue with the characters, interpreted and universalised the action. It sang of the might and justice of the gods, and of their strange dealings with men. With the clear eyes of “the average and unbiased spectator,” it surveyed the action and the passion of the play; and its praises, its rebukes, its advice, its sympathetic hopes and fears, serve to relate all that is said and done to the profoundest facts of life and destiny. Thus to the Greek tragedian belonged a more direct and explicit means of interpretation than to the modern.

The Chorus never left the stage, and for this reason, if for no other the scene could never be changed, and the action represented was limited to that of a single day. This principle of the Unity of Time and Place meant both a gain and a loss of power—a gain in concentration, in the force that comes of rigid coherence, in the dignity that comes of simplicity; but a much greater loss. Shakespeare defied this law, and those of his contemporaries who idolised it. To focus attention on the action of a single critical and decisive day may intensify that crisis; but the *preparation*, in thought and feeling and event, for the hero’s decisive choice is of equal importance, and means more than anything else to the modern dramatist. He is concerned less with the deed itself than with the inward conflict that precedes it, and sometimes with the modification of character under the stress of circumstance. Thus his plan demands extended time. Fixity of place matters less

but is a quite unnecessary hampering, from the modern dramatist's point of view.

Again, while in every good drama the plot is closely woven and irrelevance is avoided, the Greek and the Shakespearean conceptions of irrelevance were totally different. The Greek would have felt that the savour of tragedy was lost if any lighter element were allowed to intrude—if the sternly serious tone were to change even for a moment. Shakespeare, with his eyes upon life's strange mingling of smiles and tears, gives truth, as well as relief and effective contrast, by mingling these in his representation of life in tragedy. And to the Greek the virtues of the *sub-plot*, for support and for contrast, were unknown; nor did he realise how much nearer to life we are brought by the play and interplay of many men and women, in many varying moods.

Finally, the matter of all Greek tragedies was taken from a mythology with which every member of the audience was thoroughly acquainted. He knew what would happen, he was never tense with doubtful excitement, and it was never possible to surprise him. He loved and was always on the look-out for little novelties of detail, but he always knew the end. This worked both for bad and for good. Suspense and surprise are instruments very valuable to modern dramatists, though often (for example when dealing with historical material) they cannot employ them. But expectation may be used with equal power; and irony is the method of its use. The most potent form of irony, so powerfully used by Sophocles that it is called the Sophoclean form, depends upon the spectators' knowledge of what the persons of the play cannot know. Blindly, as in life, they make their plans and hope for happiness. They jest at fate even as fate approaches to overwhelm them. Ignorant of the coming darkness, they wax wanton in the light of prosperity, and utter the insolence that provokes the wrath of heaven. Urged by the fate that maddens men before it destroys them, they speak words the deadly fullness of whose meaning is unknown to themselves—light-hearted or perhaps scornful words, yet laden with prophecy of doom. Shakespeare uses this instrument frequently in certain plays, when the audience have already discerned that doom is inevitable. Of this nature is the secure and contemptuous utterance of Lady Macbeth—

A little water clears us of this deed ;  
How easy is it then !

The irony is apparent as she speaks; but its full force is reserved for that later time when, in an agony that ultimately destroys her, she

cries—"What! will these hands ne'er be clean?" and again—"All the perfumes of Arabia will not sweeten this little hand."

Irony is the very texture of Sophocles' greatest plays. An ironical situation is developed by him with extraordinary deliberation and fullness, the fateful sentences following one another page after page. An example may be taken from the play of *Oedipus the King*.

Oedipus is seeking to discover who is the sinner, the murderer, whose sin has brought pestilence from the gods upon the city of Thebes. He knows not that he himself is the guilty man. In a highly ironic scene he cries, unwittingly cursing himself,

"I here prohibit all within this realm,  
Whereof I wield the sceptre and sole sway,  
To admit the murderer, *whosoe'er he be*,  
Within their houses, or to speak with him,  
Or share with him in vow or sacrifice  
Or lustral rite. All men shall thrust him forth,  
Our dark pollution . . . . Let his crushed life  
Wither forlorn in hopeless misery." \*

He then demands of the blind seer Tiresias that he shall reveal to him who the murderer is. Tiresias knows that it is Oedipus himself, and fain would hide his knowledge; but Oedipus insists, with growing anger. At length he taunts Tiresias with his blindness. But the audience know that Tiresias' blindness of the eyes is nothing to Oedipus' blindness of the heart; and they know also that this Oedipus who, in the insolence of his anger, taunts the blindness of Tiresias, is soon himself to stagger forth from the gates of Thebes, his eyes torn out by his own hand in an agony of repentance and despair.

We cannot now trace the change and development of Greek tragedy through the work of Aeschylus, Sophocles, and Euripides; or the contrast, still more interesting, between their views both of life and of art. Each has his devotees who exalt him above the others, and there are few surer guides to a man's own temper than his preference for one or another of them.

Aeschylus lived at the time of the Persian wars, the time of Athens' truest prosperity. The Peisistratids had given her culture. Freedom she had won for herself by ultimately throwing out those same Peisistratids; and in the Persian struggle she confirmed her freedom and secured its fruitfulness. It was a time, like the Elizabethan, when every impulse tended towards creation, when power was surging in men's

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\* Lewis Campbell's translation.

hearts and minds and nothing seemed impossible. Professor Murray has remarked that "most of the disruptions and despondencies of human societies" have been due to the clashing of "the ideals of freedom, law, and progress, of truth and beauty, of knowledge and virtue, of humanity and religion;" but that for a generation or two, at this happy time, all these ideals abandoned their mutual hostilities, and were merged in one grand creative impulse. Aeschylus had the bliss of being alive, and being young, in that dawn. He fought at Marathon and Salamis—soldier and patriot first and dramatist second. His epitaph, written by himself, refers with pride to his valour at Marathon, but says not a word about his plays.

He did much for the technical development of tragedy and of the theatre; but with that we need not deal. That for which we value Aeschylus is not technique or even artistry, though he has much art, but his *might*—might of conception, of imagination, of passion, of voice. We take first that profound awe and passion that was his religion. It was Aeschylus who first gave to Greek tragedy its intense solemnity and its moral grandeur. He holds definitely that the poet is the teacher of mankind. His own work is dominated by one sovereign idea—that Providence watches keenly, and constantly interferes in, the affairs of men; inevitably and pitilessly punishing wrong-doing, through after years or after generations. In expressing this idea to his audience, he had to use the traditional ideas and myths of the gods. That old mythology was instinct with moral beauty and strength, but men had marred it both by grossness and by all kinds of inconsistency. Aeschylus made it his business to purify and harmonise the myths, and so to interpret them as to enforce his own great doctrine.

His great religious conception is that of one supreme power, Zeus, the Father of gods and of men. The religion of Aeschylus is wholly monotheistic, though he uses perforce the machinery of the pantheon. Zeus is "all-causing, all-sufficing, almighty, all-seeing, all-accomplishing." "What without Zeus," cries one of the choruses, "can befall any man?" and even Justice is the child of Zeus. His power "knows no superior, nor is anyone enthroned above him: swifter than speech is the accomplishment of his purpose."\*\* His dealings with men are mystery. "Dark and shadowy are the pathways of his counsels, and difficult to see. From their high-towering hopes he hurleth down to destruction the race of men. Yet setteth he no forces in array, all his works are

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\* The phrasing of this, and of many others of the translations given, is that of Mr. A. E. Haigh, to whose *Tragic Drama of the Greeks* this paper is otherwise indebted.

without striving. Seated on his holy throne, from thence, unknown to us, he bringeth his will to pass." What is the will of Zeus? First, that the sinner shall *suffer*: second, that by his suffering he shall *learn*. This is Aeschylus' simple doctrine of the ways of God with men. It is the guiding principle of the plays. It is continually chanted by the Choruses. And it is expressed in those two famous phrases, *drasanti pathein*, "for the doer the suffering," and *pathemata, mathemata*, "sufferings, lessons."

There is this further idea, that from generation to generation one crime leads to another; and the punishment, like the crime, descends from father to children's children. The evil deed brings a curse upon the house, and the curse remains. This is Aeschylus' characteristically Greek conception of fate. We see the son writhing in the grasp of that fate to which his father's crime has given its opportunity; and the question arises—is not this fatalism pure and simple? Is not the doom of the son wrought for him without justice? Does not Aeschylus lose sight of that great principle which Aristotle himself enunciated and which is the life of Shakespearean tragedy, that the hero's own weakness must bring his fall, and fix upon himself the responsibility? And indeed, in this matter of the curse of the house, is not Aeschylus false to his own doctrine that it is the *doer* that shall suffer? And when we see the prosperous brought low in divine anger, and the Chorus sings of the ruin that prosperity brings, we may get the impression that, in the old crude sense, Zeus is jealous of man's prosperity and man's great happiness, and determined, if he become too happy and too prosperous, to destroy him.—We must guard against this misinterpretation of Aeschylus. The idea of the "jealousy" of the gods is a most characteristic Greek idea, and is much employed by Aeschylus; but the divine jealousy is not like that of men. Not prosperity, not happiness, but overweening pride and security in these, is sin. It is sin for men to overstep man's bounds, even in thought and hope. For, long ago, Zeus, the creator and ordainer of human things, established in the universe that Order which is Justice; and if a man shall violate this law then wrath and woe shall follow him. Zeus, then, has no grudge against the prosperous man: he would only keep him within the limits set by eternal Justice. Aeschylus carefully guards against the misunderstanding. The chorus is, of course, his own mouthpiece, and the chorus of the "Agamemnon" sings,—"It is an old saying that much prosperity begets misfortune. I hold a creed far different from this. It is the impious deed that brings forth offspring of woe.—But the house that loves justice shall prosper from generation to generation."—And with regard to the inherited curse of the house Aeschylus is careful to preserve

the same idea of human responsibility. Even in the working of the most terrible family curses, the inheritor of the curse must sin, deliberately, with choice, before he suffers. Fate does indeed work upon him, and, as it were, *urge* him to sin, that the punishment of the house may be renewed ; but the definite choice remains with him : he will never suffer unless first he sins. When Clytemnestra kills her husband, Agamemnon, she definitely pleads that she is but the instrument of avenging Fate ; but the Chorus will not for a moment hear of such a plea. "Who is he," they ask, "that will hold thee guiltless of this deed ?" But at the same time they utter these strange words of admission—"And yet, perchance, the Avenger may have helped thee." There exactly is Aeschylus' doctrine. He feels that man must be responsible ; yet the urging, tempting power of Fate is strong. And one has to admit that sometimes the hero's chance of choice seems shadowy enough. He does indeed resolve upon the wrong ; but if Fate both thrusts him towards the precipice and blinds his eyes, the stepping over, though his own act, might seem to have little of real responsibility about it. Thus Aeschylus fails somewhat in his answer to the great problem of destiny, just as Shakespeare is somewhat uncertain in his.

Aeschylus is the "mightiest-mouthed" of poets : his utterance is the grandest known to man. He used to say that when, in boyhood, he was watching his father's vineyards by night, Dionysus appeared to him and bade him write poetry ; and perhaps there is no poet to whom the word "inspired" can so fitly be applied. He exhausted the unique resources of the Greek tongue, and, when they did not suffice, made thundering words of his own. He was master of a mighty line—swift yet majestic, and mingling exquisite beauty with its strength. But still more marvellous than his speech and his verse is his imagery. He does not summon images to his aid : his thought and passion shape them unawares, and they are of the very texture of his mind. Those profuse and magnificent metaphors are instinctive and inevitable to him : such is the wealth and the rapidity of his imagination that metaphor succeeds metaphor like the waves of an advancing tide. So vivid is his realisation, so intense his force of absolute creation. The ocean is to him "the forest of the surging wave" ; the eagle is "the tawny winged hound of Zeus" ; the lightnings are "forked tresses of fire" ; the wrath of God tramples with heavy foot upon the nations of Persia ; the Greek ships on their way to Troy are butted at in fury by the storm, and whirled to and fro by an evil shepherd, so that next day the sea is in flower with corpses. This is no mixing of metaphor, but simply that swiftest transition which we find also in Shakespeare's latest plays,

when he too unites images in themselves incongruous, yet profoundly aiding each other in the calling up of the tremendous idea. Aeschylus loves particularly to personify the inanimate, and, as Mr. Haigh says, "everything in his poetry seems to move, and breathe, and rejoice in its existence. Swords are savage-hearted, and swift of foot: the waves of the sea quiver with endless laughter; the ship's prow fixes its eyes on the waters in front, paying good heed to the voice of the rudder." Akin to his hurried profusion of metaphors is his delight in the accumulation of adjectives. He gives no deliberately ordered picture of a thing: he looks at its image in his mind, and detail after detail forces itself upon him and finds utterance. A mountain precipice is "bare, goat-abandoned, invisible, solitary, overhanging, vulture-haunted." There is a sublime naturalness about that description, as if one gazed, and gradually discovered for oneself. A curse is "fearful, inveterate, guarding the house, crafty, relentless, vengeful." It is the sound of these accumulated epithets that most delights the mighty-mouthed Aeschylus. All this tends towards grandeur and terror. Yet in his moments of gentleness his metaphor is incomparable in tender and pathetic suggestion, as we shall see.

His greatest play is "*Agamemnon*." Some have considered it the greatest tragedy in the world, but that of course is a statement biassed by classical leanings. It is the first play of a trilogy, that is a series of three continuous plays which, according to the Athenian custom, were performed in succession on the same day. It is probable that Aeschylus himself devised the trilogic form; his genius was such as to demand greater scope than was afforded within the limits of a single play. As we have seen, the limit set by "Unity of Time" was very narrow, much too narrow for Aeschylus' purpose of tracing guilt and punishment through the accursed years. A sufficient period of time was secured by the method of trilogy. He saw to it, however, that each play had an adequate tragic unity and completeness in itself.

This particular trilogy, called the "*Oresteia*" from the name of its final hero, Orestes, deals with the curse that had been brought upon the house of Atreus. The outline of the story is as follows.—Atreus, the son of Pelops, was wronged by his brother Thyestes. In return, he invited Thyestes to a feast, and set before the unwitting guest the flesh of that guest's own murdered children. Such a deed the gods could not allow to pass unpunished, and from that moment, till the final expiation, a terrible curse lay upon the house. Agamemnon was the son of Atreus; and it fell to Agamemnon to lead the Greek forces against Troy, in revenge for the abduction by the Trojan prince, Paris, of

Helen, the wife of Menelaus, Agamemnon's brother. · For ten years he fought at Troy, far from his home in Argos. Meanwhile his wife Clytemnestra, who had remained behind, was unfaithful to him ; and the hand of fate was seen in the fact that her paramour, Aegisthus, was the son of the grievously wronged Thyestes. At last the long war ended, and Agamemnon was returning to his loved and long desired home. Clytemnestra and Aegisthus had resolved to murder him on his arrival. Their own guilt made them afraid of him ; but besides this Clytemnestra was wroth against him because, on the way to Troy, when the wind failed him, Agamemnon had sacrificed his and Clytemnestra's daughter, Iphigenia, to appease the goddess Artemis. Thus we see that Agamemnon, whose fall is the climax of this play and is in accordance with the curse brooding over the house, is not nevertheless to fall guiltless. Further, besides the guilt of the slaying of Iphigenia, he too has been unfaithful. He is bringing with him Cassandra, the prophetess daughter of Priam, King of Troy. Just before the murder he again sins profoundly, but this we shall see in its place. Very careful is Aeschylus here about this matter of human responsibility.

This play then is Agamemnon's tragedy ; but it does not end the story. Orestes, son of Agamemnon and Clytemnestra, was commanded by Apollo to avenge upon his mother the murder of his father. It was a sad plight for the guiltless Orestes, for one way or the other he must incur guilt, whether that of slaying his own mother or that of disobeying God. He chose the former, and slew both Clytemnestra and Aegisthus. Thereafter the Furies, those dark snake-haired deities that avenge blood-guiltiness, pursued the matricide from land to land, and the guilt of his deed was heavy upon him. Finally, however, he was delivered, and the curse expiated, through the power and wisdom of Apollo and Athena.

#### THE "AGAMEMNON."

The theme of the play is the fate of Agamemnon, but in a deeper sense, the theme is the working out of the curse that is on the house. To this curse everything in the play is related. The doom appears hopeless and endless. A sense of untold iniquity broods over the play, and incessantly the Chorus chant their moral that iniquity brings punishment, and punishment brings wisdom,—but they never suggest that even punishment brings deliverance.

The earlier part of the play reveals the gathering storm-clouds, which finally burst in all the gloom and violence of irresistible tempest at the tremendous moment when Agamemnon's stricken cry is heard.

As the play begins, we see the Watchman, whose task it is to wait and watch for that beacon-light which is to announce the fall of Troy and the home-coming of Agamemnon. He has watched for ten years, and now he is not hopeful but weary,—weary both with the long disappointment of his vigil and with the knowledge of the terrible and guilty deeds that have been done in Argos since his lord's departure. He hopes desperately for the best, but the shadow of coming evil, as well as of evil that is past, is upon him. Suddenly he sees the flame. "Hurrah," he cries, forgetting gloomy anticipation for the moment. He will go tell the Queen; he will dance with joy. Soon he will grasp again the hand of his King. But suddenly the shadow seems to fall again. A weight is laid upon his tongue. "I will be silent, but were this house itself to be given a voice,—then could it tell a tale."

Now enter the Chorus. They are old men of Argos. As usual in Aeschylus, they are to be concerned in the action of the play. But they are to take no *vital* part, and they preserve the function of the ideally *average* spectator, inactive, rather helpless, yet profoundly interested; moralising, interpreting, recalling the past, adoring with awe and reverence the divine power in whose hands are these guilty sufferers—serving indeed, throughout, as the poet's mouthpiece, through which he comments on the action of his play.

As they enter, we see that they have heard nothing of the news from Troy. Their thoughts, as is natural, are of the past. They sing of Agamenon's setting forth for Troy. Eagerly, and with a mighty host, he went forth, to avenge the crime of Paris. But therein a flood of toils was broached. Fate rules the end, and nothing can save the sinners.—But suddenly they see Clytemnestra's altars blazing. What is this? Hope strives with fear in their hearts. Who, they cry, can save the soul from weary anxiety? Zeus, Zeus, only. "Naught without Zeus can I understand, nor without him can I cast away the vain burden of the mind ..... It was Zeus that prepared for men the path of wisdom, and laid on them this law, that they must learn by suffering." Suddenly, as if Fate suggested it to them, the idea of the slain Iphigenia enters their minds. Their description of her death is one of the loveliest and most pathetic passages in poetry.—The chiefs of the host decided she should die, and her father was the slayer. "The warrior-chiefs cared nothing for her prayers as she called her father's name: naught recked they of her virgin years. And after the prayer, the father bade the priests uplift her, like a sacrifice, above the altar, her garments drooping round her; to bridle into silence with force of bonds the cry of that sweet mouth, a cry that was fraught with omen

for the house. The folds of her saffron garment were shed on the earth, and she smote each sacrificer with looks beseeching pity, lovely as in a picture, dumb yet fain to speak. For often in her father's hall she had charmed them, with pure fresh voice, singing to them gently as they pledged and feasted therein." Tennyson was thinking of those great lines when, in his "Dream of Fair Women," he made Iphigenia speak—

"I was cut off from hope in that sad place,  
Which men called Aulis in those iron years :  
My father held his hand upon his face ;  
I, blinded with my tears,  
"Still strove to speak : my voice was thick with sighs.  
As in a dream, dimly I could descry  
The stern black-bearded kings with wolfish eyes,  
Waiting to see me die."

At the end of the song of the Chorus, Clytemnestra enters, strong and stately in her beauty and her veiled but resolute purpose. She gives the Chorus their first intimation of the great news. She pretends the greatest joy ; but makes ominous suggestions about the dangers of the warrior's homeward path. And then again, the Chorus. As they make their prayer to Zeus, their thoughts hark back once more to that beginning of the toils and woes of the Grecian host—the abduction of Helen by the prince of Troy. Here comes the astoundingly beautiful picture of Menelaus' mourning for his lost love, another of the finest passages in the world's poetry. "And then were heard ominous voices mourning her flight from Argos.—'Woe, woe,' they cried, 'woe for the house, and for its lord. Woe for the old kind days therein. He stands deserted, silent, dishonoured, yet unreviling ; and in his longing for her who is beyond the seas he seems but a ghostly shadow as he rules his house. And the loveliness of fair statues is hateful to him now, for in his aching eagerness to see her is lost all love and all delight. At night come vain dreams of gladness, but their waking is fraught with sorrow. Vain, vain indeed it is, when the fair, glad vision slips from his clasp, and straightway is vanished, winging away on the paths of sleep.'—So mourned Menelaus." And what, ask the Chorus, of the other mourners whose loved ones went to the war because of the wife of another, and have not returned ? Everywhere there is mourning, and everywhere a muttered curse. A people's sorrow, a people's curse, and all brought about by the iniquity of reckless spirits in high places. Blessed are they whose modest undistinguished lives cannot lead them into evil, and into the jealousy and hatred of gods or of men.

They are interrupted by the entrance of the Herald, who has come before his master Agamemnon. Aeschylus sometimes exhibits a sublime carelessness of possibility ; and this Herald appears to have made a journey of weeks in a day. Aeschylus is not a subtle or elaborate portrayer of character, but his persons have plenty of life and truth in them ; and this rough soldier, careless of everything except the joy of the present, is very vivid and convincing. He comes in with bustle and cheerfulness. He knows nothing of what has been going on. All he knows is that the war is over, and that he sees his home at last. But here his cheerfulness is like good cheer in the house of death. The Chorus welcome him warmly enough, but even he cannot but observe a certain constraint and sadness in their speech. “ Whence came this cloud upon your spirits ? ” he asks them. They answer him vaguely, and again his boisterous joy asserts itself. “ We too have suffered before Troy, but that is over now. Farewell to sorrow. We are alive, and we are victors, and past suffering is lost in present joy. Praise be to Zeus, the giver of these gifts.” This is fine irony.

Now enters Clytemnestra, and welcomes him with artfully pretended joy. Her speech is full of irony of a terrible and deliberate kind. “ And now, why should I ask thee to tell me more ? I shall learn all the tale from my lord himself. How will I hasten to receive my lord when he comes ! What fairer light can dawn on a woman’s eyes than the gleam on the gate that opens for her lord when, safe by the grace of heaven, he returns from war ? Bear thou this message to my husband. Let him come with speed, he that is beloved of our city. He shall find an unchanged, faithful wife in his house.” With fearful falsehood, inviting her own doom which is to come, she declares that, a true wife still, she has steadfastly guarded his home for him. And so she goes out, and the Herald continues his story to the Chorus, and departs with still-cheerful heart. Again the Chorus sing, and again of Helen the Destroyer, and of fatal, presumptuous pride.

All this time Agamemnon has been drawing nearer. We are now tense with expectation of his coming, and we have seen the home, and the doom, to which he comes.

Enter Agamemnon, with Cassandra. At first there is no one to greet him but the Chorus, and they welcome him with real love and devotion, though mingled with vague warning. But our eyes are upon Agamemnon himself. We have a consciousness that everything depends on the way in which he bears himself now. He comes as victor : will he be overproud, or will he seek security by humbling himself before the gods ?

He enters in royal confidence and triumph, and soon Clytemnestra comes forth to meet him. She welcomes him with effusive protestations of her sorrow and loneliness in his absence, and her joy in his return : a long artificial speech, ending in words of terrible irony.—“And now I pray thee, my beloved, my prince, set not upon the *ground* that foot that has trampled Troy. Come, my maidens, why delay ye in your task ? Cover the way for his feet with spreading purple, *that Justice may lead him to a home he thought not to see.*” And she ends, “Thought unsleeping shall order well and justly, and with the help of God, that which has been decreed.”

Some instinct warns Agamemnon not to tread that proud presumptuous path, too glorious for a man. She has set this snare for him. “It is a fearful thing,” says Agamemnon, “for a mortal man to walk upon these purple glories. I tell thee, honour me as a man, not as a god. Fame needs no shining carpets for her feet, and modesty of thought is the greatest gift of heaven.”—This is the right tone. Had he followed this instinct, nothing could have harmed him. But she argues with him, and makes it a point of personal favour, and he yields. With awe, with fear, he takes off his shoes and steps upon the rich carpet that leads him to his doom. Commending Cassandra to her kindness, he enters the house ; while Clytemnestra can scarcely conceal her triumph, and cries at length—“Zeus, Zeus, the Filler of all things, fulfil my petition, and be these destined deeds thy care.”

Cassandra and the Chorus are left alone, and the Chorus sing in strange foreboding. Clytemnestra, who has gone out, re-enters, and commands Cassandra to enter the house. But the prophetess is utterly silent, and does not move, even when the Chorus try to arouse her. At last Clytemnestra utters terrible words—“I have no time to waste out here with her. The victim stands within beside the inmost hearth, waiting the fire of sacrifice—a joyous sacrifice that we never hoped to see.” But not till Clytemnestra is gone again will Cassandra speak. Then she breaks silence with a cry of agony. With an appeal of ineffable woe she calls upon her god of inspiration, Apollo. Long ago, she had offended him, and he had requited her by bestowing on her the prophetic gift, and the doom that none should believe her prophecies. And now she sees the ghosts of Thyestes’ murdered children brooding over the house, and in an agony of inspiration foresees what is to be. Not merely does she see the imminent doom of Agamemnon and herself, but also, looking far into the future, she discerns the day when Orestes, the last avenger, shall come. This scene of fearful, passionate lament and prophecy well prepares us for the moment that is now at hand.

At length, slowly, step by step, she approaches the house. But suddenly she shudders and stops dead. She scents the odour of blood and death proceeding thence. Yet she will go within. She has done with life, and as she enters she utters one last prayer and prophecy.

The Chorus are now alone. All is tense, agonised expectation. They break the terrific silence with a song, which in its turn is suddenly, appallingly, interrupted. This is the most terrible moment in all tragedy. "Oh, oh! I am stricken, and I die." "Hush!" they whisper; "whose voice is that, crying that he is slain?" Again the cry, for there has been a second stroke. "Oh, oh! again am I smitten!" "It was the King that cried." Now to these listeners all is clear.

How is Aeschylus to follow a moment like that? Agamemnon will never more utter word; his agony of death is past. What human speech, now, will not be jarring and sacrilegious in its feebleness? By an extraordinary stroke of genius, anticipating centuries of dramatic development, riding roughshod over the accepted canons of his Greek art, Aeschylus does the only right, the only possible thing. The tension cannot remain unbroken. We cannot remain for a moment more on these heights of tragic passion. How can he bring us down without plunging into bathos and artistic ruin?

By the very extremity of contrast it is done; by doing a thing that no one between Aeschylus and Shakespeare dared to do; by dropping suddenly to the low and common level of very ordinary and comically futile men. The poor average men of the Chorus, seeming by contrast a great deal less than average now, have no idea what to do. There are twelve of these poor anxious souls, and each has his own foolish suggestion, as they hurry aimlessly to and fro. "Let us sound an alarm, and call the people." "No, let us break into the palace, and get proof of the deed." "Yes, that is better. Let us do *something*: this is no time for talking." (How well we know that character!) "These signs show plainly that treason and tyranny are near." (There we see the wag of the head of the citizen-philosopher.) "Yes, we are losing time, while others are acting." "I know not what to say. The doer has got ahead of our devising. It is hard to advise." "Hard! Yes, I agree with you. How can words raise the dead to life?" And so on. The artistic crisis is safely past. At length their poor words fall into silence, as the doors are opened and Clytemnestra, bloody axe in hand, is seen standing over her husband's body, a living exultant Vengeance, and proclaims and defends, nay boasts, the deed.

“ This is no unpremeditated strife ;  
 Over this ancient feud I have brooded long,  
 That the slow time at length hath brought to pass.  
 Here stand I, as I smote. Nothing will I deny!  
 That he might not defend himself, or 'scape,  
 As round the fish the inextricable net  
 Closes, in his rich garments' fatal wealth  
 I wrapt him. Then once, twice, I smote him home.  
 Twice groaned he, then stretched out his failing limbs,  
 And as he lay I added a third blow,  
 And unto Hades, the dark god below,  
 Warden of the dead, made my thanksgiving vow.  
 So, fallen thus, he breathed out his proud life,  
 And spouted forth such a quick rush of blood,  
 It splashed me o'er with its black gory dew.  
 Yet not the less rejoiced I than the flower  
 Within the pregnant folds of its sweet cup  
 Rejoices in the dropping dews of heaven.  
 Being as it is, ye Argive elders all,  
 If that ye too feel joy, rejoice with me ;  
 And I protest that were it meet to make  
 Libations for the dead, 'tis I would make them ;  
 For all that's done is just—is more than just.  
 He that hath filled the chalice of this house  
 With cursing and with woe, on his return  
 Himself should drink it to the very dregs.” \*

*Is the deed just, then, we ask. Yes : it is just. Justice has overthrown Agamemnon. But that does not mean that his slayer, his wife, is blameless. She is accursed first in man's sight, and then in the sight of God. In the song of the Chorus, mourning is pathetically mingled with cursing. Vainly Clytemnestra tries to justify herself by urging that it is not she that has done the deed, but the spirit of vengeance for that old banquet that Atreus made. Neither the Chorus nor Aeschylus will admit the plea : on her too lies the law,—“the doer shall suffer.”*

Just as Clytemnestra declares that now she will be well satisfied with but little wealth if only the curse depart, satisfied by this last act of vengeance, Aegisthus enters, and at once reveals his nature by vulgar, cowardly boasting. The Chorus rebuke him, and pray for the coming of Orestes, the new avenger. He threatens them with his

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\* Copleston's translation.

guards, and the poor old men prepare to fight. But Clytemnestra, infinitely his superior, in spite of her crime, calms him with the affection of a fiend, and the last words of the play are hers—proud, contemptuous, doom-inviting in their security.—

Care not for the idle yelpings of these old and feeble men.  
I and thou, together ruling with a firm and even hand,  
Will control and keep together both this palace and this land.

But even as she speaks, that repeated word of the chorus, “Orestes, Orestes,” echoes in our ears. God, they have said, shall direct Orestes homeward for his people’s good, and we know that he will come. Agamemnon is no more. By the curse he has been tempted : by the curse he has fallen By the curse there shall be yet another fall, when his murderers, now triumphing, shall bite the dust Yes verily, Zeus is the Lord of all.

We cannot trace the story further, through those next plays, the *Choephoroi* and the *Eumenides*, which the fortunate Greek spectators beheld on the same day. But as our thoughts return to the slain Agamemnon we see that this drama needs for itself no continuation. He has chosen, erred and fallen ; and the ways of God are justified to men. We moderns, of course, needs must ask our question—“Did he indeed err so terribly, and was there no way but this ? If suffering be learning, what learning follows death?” From Aeschylus comes no answer, nor did he feel its need. Shakespeare felt it ; and though he too failed to find an answer, he responded to our questioning by gently lifting, but for a moment, the curtain of that other life that is entered by the gates of death ; a life, let us hope, where, with the gentleness of fullest understanding, the wounds of Agamemnon, of Hamlet, of Othello, of the strongest and the weakest sinners of this world, are healed by fully comprehending love.

J. C. ROLLO.

## THE PLAY OF "HAMLET" AS A SHAKESPEAREAN COMMENT ON LIFE.

IN response to the sixteenth century audience's demand, a kind of drama was contrived whose action "was a prolonged tempest." In a play of this sort, "blows fell like hail-stones; swords flashed like lightning; threats roared like thunder," such was the tragedy of blood or revenge. And "Hamlet"—one would hardly believe it—appears in its rough outline as a lineal descendant of this species. So deep and persistent has been the appeal of something characteristically Shakespearean that envelops this "tragedy of thought" that, as a rule, little attention is directed to its rather crude and even barbaric elements. Almost all the constituents of a revenge-tragedy find their exact counterpart in this play. First comes the awe-inspiring ghost of the murdered Danish king, an authentic Senecan survival. Claudius and Laertes, though they do not attain the first magnitude in wickedness, are yet unmistakable villains. The interest of insanity is furnished not only by the tender, loving Ophelia, whose part in the drama is "one romantic tissue of love, passion, pathos, and unmerited suffering," but also by Hamlet's assumption of madness. The Queen dies by a poisoned drink, which was meant for other lips to taste. There is also the fencing match, where a pre-arranged, deadly design determines the lamentable issue. Even the hero, a generous, open-hearted man constrained to work out hateful revenge, bears a certain resemblance to the hero of the blood-and-thunder type of tragedy. A death by poison, a death by drowning, a hasty and inconsiderate manslaughter, three deliberate murders, two beheadings in a distant land,—the list contains all the ghastly manifestations of death's grim humour. "Very few persons," in the words of Symonds, "survive to bury the dead, and these few are of secondary importance in the action." The only notable departure from the orthodox type of bloody drama is the insignificant position assigned to love as a motive in the play. The dramatist portrays love as pathetic, but not as tragic and heartrending, not at all as the dominant principle of the action, the obstinate conviction of old Polonius notwithstanding.

Thus the closeness of the structural relation of "Hamlet" to the traditional revenge-tragedy is beyond dispute. But had it not been

something far higher, it would never be the cherished possession of posterity, any more than Henry Chettle's "Tragedy of Hoffmann," or the anonymous "Soliman and Perseda," which once shook the stage, and are now sunk in deserved oblivion. Shakespeare borrowed the heap of bones and sinews already in existence; and animated them with the mysterious breath of life. He did not disdain "to turn the coldest mechanisms of the stage to spiritual use." "Hamlet" belongs to humanity for ever, "because," as Hazlitt says, "it abounds most in striking reflections on human life," and because it announces "a prophetic truth, which is above that of history." Trustworthy evidences show that the poet was long busied over the problem of this play, which fact points to a strong personal predilection for the subject. The impression forces itself upon our minds that the play "has to do"—to quote Dowden—"with almost the whole of the deeper part of the poet's life up to the date of its creation." In this play occur an unusually large number of what Professor Masson calls "fervours," or utterances with a certain enthusiasm and glow of the whole spirit. Besides, it is the first of the series of tragic masterpieces, through each of which runs "a vein of passionate thought and emotion." Lastly, in Hamlet's nature there is much that was congenial to Shakespeare's own. Thus, in "Hamlet," Shakespeare gave expression to some of his deepest thoughts, while of course, maintaining his general practice of impersonal and strictly dramatic craftsmanship. It is, therefore, no thankless or uninteresting task to seek here the poet's comment on life, though it is a comment only, and not a systematized philosophy of life.

At the outset, we have to note the tremendous consciousness of evil exhibited in this drama. The presence of utter wickedness in the world appears to have forced itself upon Shakespeare's mind, with the overpowering effect of a phenomenon not completely realised hitherto. This statement does not imply that the poet had been unaware of the depravity in men, or of the far-reaching consequences of criminal actions. Witness only his description of the life of the royal villain, Richard III. But the knowledge that evil is a subtle and ineradicable element, having the power gradually to enclose within its meshes the good and the innocent, was now brought home to his heart. The armed spectre, foreboding "some strange eruption to our state," reveals the unperceived activity of evil. Marcellus remarks: "Something is rotten in the state of Denmark." However in character Hamlet's speeches may be, it is difficult not to feel Shakespeare's own accent in his words of anguish, that the world is "an unweeded garden, that grows to seed; things rank and gross in nature possess it merely."

Hamlet persists in describing his mother's second marriage as incest. The sinful king, whipped by a momentary spasm of penitence utters the cry :

“ O my offence is rank, it smells to heaven.”

Even the mad Ophelia's words “ there's tricks in the world,” are significant. The reason why the presence of evil affected Shakespeare at this period lies in certain important events of this portion of his career. His hopes of planting a family had been frustrated by the death of his only son, Hamnet, in 1596. The dazzling glory of Elizabethan England steadily waned ; and signs of approaching darkness filled the sky. The controversy of the theatres raged with rancour and fury. Nearer still, Essex was unjustly executed, and Southampton pined in gaol ; and the deplorable fates of these two patrons touched Shakespeare to the quick. These and other miseries compelled the poet to search the depths of life for the malignant causes of human sorrows. What wonder, then, that he came to understand the manifold varieties and devastating effects of gross corruption ? The world of “ Hamlet ” being a miniature cosmos presents evil as an essential element though Shakespeare leaves its presence an insoluble mystery.

Closely connected with this consciousness of evil, appears the longing to be away from the troubles of the world. Professor Bradley speaks of the idea of blood as running, like a distinct thread, through the tragedy of “ Macbeth.” Similarly, a profound sense of world-weariness forms no insignificant part of the sum-total of the impression conveyed by our play. At the very beginning, the sentinel Francisco's words strike the keynote :

"Tis bitter cold,  
And I am sick at heart.

Hamlet's first soliloquy begins :

O that this too too solid flesh would melt,  
Thaw and resolve itself into a dew !

The world is a prison, “ ay, a goodly one, in which there are many confines, wards and dungeons ; ” and who does not yearn to burst the bonds of imprisonment asunder, and go out to the free air ? To Hamlet, “ this majestic roof fretted with golden fire ” looks as a “ foul and pestilent congregation of vapours,” man, even though he is “ infinite in faculty,” is but the “ quintessence of dust,” and nothing in the world matters. The revelation of the unnatural fratricide, and of the sensual indulgence of his mother, comes as a shock to the generous, frank, and spotless soul of Hamlet.

Given as he is to generalising on the strength of one particular instance, this moral downfall of persons so near to him in blood makes him despise the whole world, and desire to be rid of its worries, and though at the end his conception of what follows death be merely "silence," yet it is deliverance, and to continue to draw one's breath in this harsh world is to absent oneself from felicity. Although much emphasis cannot be laid on this in our estimation of Shakespeare's own interpretation of life, yet a strain of this feeling of Hamlet, the character after Shakespeare's own heart, can reasonably be ascribed to the poet.

But the most important comment of Shakespeare on life appears in the emphasis laid upon the fact that "character is destiny." The deliberate actions of the person are factors in the determining of his fortune. In laying stress on the potency of personality, Shakespeare marked the transition from the ancient to the modern world. Although Aeschylus and Sophocles introduced, in their exposition of gloomy themes, some notions of human responsibility, and in a distant way, of human freedom also, yet the idea of an external fate reigns paramount in the Greek tragic creed. But Shakespeare, true modern that he is, places alternatives before a character, and gives freedom of choice. Macbeth has to select either the crown and regicide, with the consequent spiritual gnawings, or a less exalted position with an unsoled conscience. If he chooses the former he has to bear the entire load of punishment, and not call upon the Weird Sisters or Lady Macbeth to share the burden. The characters in "Hamlet" illustrate the truth of this principle. Polonius, a "wretched, rash, intruding fool," is overcurious and insists on directing other people's affairs, and thus his end is a "fortune" brought upon him by himself. Laertes agrees to the poisoning of the cup, and the scheme of envenoming the unbuttoned foil is the invention of his own brain. He finds that

the foul practice  
Hath turned itself on me.

Claudius but sets on the engine which destroys him. Even the gentle Ophelia helps to bring about her own fate: a certain lack of character subjects her to the will of a foolish father and a brother whose worldly wisdom is akin to that father's. In obedience to their ideas and her father's command, she refuses to meet her large-hearted lover, whom she might have saved had she been stronger. The sad events of her father's death, her madness, and her drowning, inevitably follow. And Hamlet himself, though none can make bold to pronounce his death deserved, liberally contributes to his own destruction. His habit of

"thinking too precisely on the event," aided by the melancholy which has settled on his heart, thoroughly unfit him for the onerous duty of satiating

all the region kites  
With this slave's offal.

Besides, he possesses the wonderful faculty of deceiving himself with trivial excuses, which he thinks to be sufficient to justify delay in avenging his father's murder. He may, on his return from the abortive voyage to England, speak much of the

divinity that shapes our ends,  
Rough-hew them how we will—

and may ejaculate "even in that was heaven ordain'd." But this fatalistic theory, which develops late, does not vindicate the inaction.

Yet Shakespeare does not indicate that character is all in all. He sought to get hold of the actual facts of life. Thus, while giving a large place to the character's inherent powers and his freedom, he yet considers the environment an important cause of the action which ultimately decides the turn of events. Hamlet's proneness to excessive reflection could not be the parent of disastrous results, if only the circumstances in which he is placed were less unfavourable. But the disgusting charge of revenge, from which his sensitive nature recoils with instinctive abhorrence, presses on his frail shoulders. He breaks out with characteristic indignation :

The time is out of joint; O cursed spite!  
That ever I was born to set it right.

Further, at the time of the Ghost's appearance, and its insistence on revenge, Hamlet's mind is clouded by a deep melancholy. The "supernatural soliciting" naturally upsets him beyond recovery, since it comes at such an inauspicious moment. He loses the ballast of his soul; and what can accrue from this conjunction of malign circumstances but pain and death?

Shakespeare goes further. His practice of "holding the mirror up to nature" finds illustration in his treatment of accidents. He never violates fidelity to nature, never gives a garbled account of the facts of life. How audaciously, yet how truthfully, he makes the catastrophe of "Hamlet" centre round the unhappy meeting of the hero and the incensed Laertes, at Ophelia's grave! The moment is one of intense emotion on all sides. Hamlet, whose sensibilities are set afame by Laertes's manifestation of brotherly affection, forgets himself, and offers unforgivable insult to that hot-tempered youth, who already regards him with inveterate hatred as the author of his nearest relative's death.

This offence confirms Laertes's resolution to carry out the plot which brings about Hamlet's and his own ruin. Shakespeare was too minute an observer of life to ignore the enormous significance of accidents, though he will not allow them to bring about catastrophe contrary to character and to the general trend of events.

In spite of these sad fortunes, a Shakespearean tragedy does not leave us "crushed, rebellious, or desperate." To go away from the reading of "Hamlet" with the sense of unrelieved darkness would be an utterly unfaithful response to the appeal of that tragedy. In the first phase of our sorrow, no doubt, we are tempted to exclaim, with Horatio :

What is it ye would see ?

If aught of woe or wonder, cease your searches.

So gloomy does the spectacle appear. We feel, however, that through the poet's portrayal the principal characters receive a power which makes them transcend the petty limitations of their surroundings. They seem to burst the bonds that would consign them to unutterable woe ; and they appear chastened and lovelier than before, when their eyes have been closed in everlasting sleep. In their material progress, pain, grief, and obstruction at every step have fallen to their lot. But the Shakespearean characters reveal to us that life possesses something infinitely more precious than merely earthly comforts and advancement. Hamlet moves through the world so noble in soul, so faithful to truth and honour, so steadfast in strength, tenderness and magnanimity, that we reconcile ourselves to his end, in the exhilarating contemplation of his unspotted character. Indeed he is the more endeared to us when, after his life's fitful fever, he sleeps well. Spencer Baynes, speaking of Shakespeare's great tragic heroes, says :—" We feel that, death having set his sacred seal on their great sorrows and greater love, they remain with us as possessions for ever." We hope that, from the "unpolluted flesh" of fair Ophelia, who meets a death so pitiable, and is unceremoniously "compounded with the dust," violets may spring. Shakespeare inculcates fidelity to all that is best in life ; and, in the very midst of the most tragic experience, proves the essential greatness of the human soul.

It is, of course, impossible, to define, in precise terms, Shakespeare's conception of order in human life. Yet the direction in which his thought moved is clear. That, in Shakespeare's view, the world is fundamentally a moral system, appears to be incontestable. The drawing towards good, and alienation from evil, characterise the law which rules the world. How it came to allow evil within its domain,

Shakespeare does not pretend to explain. But he emphasizes the doctrine that the moral order is continually trying to eject the evil, which troubles it like a marasmus. The evil generally hunts itself down. From time to time, therefore, terrific convulsions occur, when the system quivers from head to foot in its painful but successful, attempt to get rid of the evil, which has attained intolerable proportions. Tragedy reflects a convulsion of this sort. As it is a mighty upheaval, stirring the world from its depths, the resulting destruction must naturally spread over a wide area. Of how poor value a man's life looks, in comparison with the stern determination of the moral system to vindicate and establish its righteousness. Here we have another reason why Shakespeare's "Hamlet" and his other tragedies do not produce depression of spirits. Hamlet and Ophelia must die, because the reign of a supreme law has to be proved through the loss of life itself ; and in their very death they make plain the truth that life is nobly regulated. We must also consider that, when the curtain drops for the last time, the note of hope is ringing in our ears. The beautiful prayer of Horatio, that the departed soul of the noble hero may be tended by the angels, comes as a breath of hope and consolation. Besides, Fortinbras has the "dying voice" of Hamlet to ascend the throne ; and we know that this event marks the dawn of peace and good government for Denmark. Thus Shakespeare does not, nor allows us to, fall into the slough of despond : through sorrows he wins his way up to an eminence of peace.

Yet this sane and optimistic interpretation of life cannot prove one sad, inexplicable fact. The tragic world depicted by Shakespeare suffers a very heavy loss in such uncontrollable destruction. It is not alone the number of the dead that counts. The fact that some of them possess unlimited potentialities for good gives rise to a melancholy sense of dreadful waste. This sense of waste is especially provoked by "Hamlet." A beautiful and delicate maiden, strong men in the prime of life, and among them one of the finest and the noblest, go down to untimely death, and the feeling of ruin lashes us into apostrophising "proud death,"—

What feast is toward in thine eternal cell  
That thou so many princes at a shot  
So bloodily hast struck ? .

Shakespeare does not attempt an explanation of this phenomenon ; for life will not render up this secret.

During the period in which this play was written London was a scene of Bohemian excesses. Irrepressible geniuses like Marlowe and Greene stormed through life, like a "fire-breathing," "spirit-post,"

Shakespeare, however, took these magnificent aberrations as object lessons, and tempered even artistic extravagance with practical, worldly wisdom. If the fact that he lived to become a rich burgher of his native city is not sufficient evidence of his innate habit of self-dominion many passages in praise of moderation can be quoted from "Hamlet." The hero pays a noble tribute to Horatio, who belongs to that class of persons

Whose blood and judgment are so well commingled  
That they are not a pipe for fortune's finger  
To sound what stop she please.

indeed, Hamlet so loves this serene type of man that he speaks out with genuine passion :

Give me that man  
Who is not passion's slave—and I will wear him  
In my heart's core.—

Now and then he ridicules his own habit of flaring up with much heat on the slightest pretext, as when he says :—

This is most brave  
That I . . . . .  
Must . . . unpack my heart with words,  
And fall a-cursing, like a very drab,  
A scullion !

His description of what the player would do if he had Hamlet's weight of injury has a manifest tinge of scorn. What an admirable counsel it is to keep in view "this special obesrvance, that you o'erstep not the modesty of nature." The golden mean between "whirlwind of passion" and contemptible passivity appeals to Shakespeare's sound commonsense. And he tells us, drudges in whatever walk of life we may be, "Be not too tame neither, but let your own discretion be your tutor."

Again, in Shakespeare's comment on life, a repeated insistence on sincerity deserves notice. Hamlet waxes indignant against all kinds of shams. He himself possesses such a free, frank and generous soul that he suspects no lurking malice. This impression is ratified by his asking carelessly, "These foils have all a length?" and proceeding without suspicion to the fatal combat. He does not tolerate the acting of a part by any one, because he has "that within which passeth show," and knows not "seems." He despises the insincerity of self-conceit and the affectation of wisdom in Polonius. Under the garb of lunacy, he calls him a "fishmonger," and when that worthy repudiates any

such profession comes the scathing remark,—“Then I would thou wert so honest a man.” Rosencrantz’s light witticism that “the world’s grown honest,” rouses him to reply bitterly.—“Then is doomsday near, but your news is not true.” Hamlet wishes to pluck away the wrappings of dishonesty from the heart of things, and see truth in her native loveliness. The fawning adulation of Osric, the time-serving “faithfulness” of Rosencrantz and Guildenstern, the hollow bombast of Laertes, Gertrude’s wallowing in sinful security, all alike excite his anger; and he pronounces their condemnation in withering terms. Shakespeare must have felt keenly the insincerity of the elaborate flattery and formalities of court life, and the thousand shapes of falsehood which met him in his everyday intercourse with the world. And he sums up his comment in the terrible words: “To be honest, as this world goes, is to be one man picked out of ten thousand.”

In this play, Shakespeare just lifts a corner of the veil drawn over the other world. That an “intense inane” exists, enveloping this actual globe of ours, he does not doubt. But from that bourne, “no traveller returns.” At the very commencement of the action, we have a dreadful visitant, “bringing airs from heaven, or blasts from hell.” The Ghost’s tantalising words about “the secrets of his prison-house,” and his sentence that

this eternal blazon must not be  
To ears of flesh and blood,

awaken curiosity. The repentant King’s reference to the next world,—

There is no shuffling, there the action lies  
In his true nature,

conjures up the image of a state of existence where profounder justice is found at last and we have Horatio’s comforting suggestion,—

flights of angels sing thee to thy rest.

Lastly, we have to note the evil results of the sceptical attitude of mind. Much of Hamlet’s misery can be traced to this destructive attitude. As though to convince the reader of the futility of what calls itself the rational outlook on life, Shakespeare makes Horatio scoff at Bernardo’s tale of the apparition, in a moment to be shocked out of his false conviction. “There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy.” If only Hamlet had not extended his scepticism of woman’s constancy to include even Ophelia, and had basked in the sunshine of that pure maiden’s love,

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the entire course of the story might have been different. It is this pernicious tendency that chills the warm springs of activity in Hamlet. Shakespeare fought his way to faith and hope, but Hamlet dies in the struggle.

To conclude, Shakespeare takes a large range of human life under his penetrating vision ; and by laying stress on honesty, firm faith, and moderation in everything ; by condemning heartily all kinds of humbugs, cramping scepticism, and subjection to any kind of excess ; by pointing out the enormous strength of human personality, and the deathless nobility of the human soul, he takes rank as one of the most refreshing and soundest optimists the world has ever known.

S. V. RANGANNA.

## THE KING OF THE DARK CHAMBER.

*The King of the Dark Chamber* is the profoundest of all the dramas of Rabindranath Tagore. It contains the quintessence of all his philosophy; all the serene wisdom of *Gitanjali* and *Sadhana* is there. It dramatises the relation of the human soul to God. Thus for a true interpretation of *The King of the Dark Chamber*, a background of Rabindranath's philosophy is necessary.

The fundamental idea in Rabindranath is that the need of expression, of embodiment, of realisation is inherent in the nature of Spirit. It belongs to the logic of its nature to evolve its own form or expression. When the heart of the poet is profoundly stirred and overflows, it inevitably embodies itself in a poem. Or when the man has not the gift of utterance it shows forth in the expression of his countenance, sudden acts of kindness and so on. The same idea we find expressed in the great law of psychology that consciousness is motor. All mental states must issue in movement. There is no psychical state which has not its physical counterpart. Even the subtlest speculations of the metaphysician involve certain changes in the dance of atoms in the brain-stuff. Now the psychologist does not care to go behind this fact. It is his sufficient starting point. He bases all his observation and analysis on this background of parallelism. But the idealistic philosopher comes up and offers an explanation. Consciousness is always motor, mind cannot exist without the body, because mind has created its own body as the condition of its own realisation, as a means to its own actualisation. This is the same as Rabindranath's idea that it is the nature of spirit to evolve its own expression.

Let us examine a little more closely why this spirit should evolve a Form, and how this Form helps its realisation.

When we are thinking of mind and matter as different things, we are thinking of mind as some kind of energy, and of matter as a dead thing, lifeless and wooden. Now, it is true that mind or spirit is some kind of energy or activity arising from joy. From this nature of spirit as activity follows the need for expression. Obviously, activity cannot take place in empty air. "This joy, whose other name is love, must by its very nature have duality for its realisation. When the singer has his inspiration, he makes himself into two; he has within

him his other self as the hearer, and the outside audience is merely an extension of this other self of his. The lover seeks his own other self in his beloved. It is the joy which creates this separation, in order to realise through obstacles the union." The spirit, therefore, splits itself into two, in order to realise itself, and only when it sees itself affirmed in its other and loses itself in its other has it attained its consummation. When the heart of the poet is utterly big with joy, he must sing out. His joy expresses itself in the form of a poem; even as the joy of a singer in the form of a song. It is in this way that Rabindranath Tagore conceives of the whole universe as a world poem expressing the fulness of joy of the Divine Creator. "From joy are born all creatures, by joy they are sustained, towards joy they progress, and into joy they enter." "The immortal Being manifests himself in joy-form. His manifestation in creation is out of his fulness of joy to realise itself in form . . . The Amritam, the immortal bliss, has made himself into two. According to the law of the spirit, this immortal joy, which was without form, has translated itself into forms, has evolved its own embodiment, and the universe is the result. This divine energy must sunder itself into two in order to realise itself. It must take shape in order to reach its consummation. The Infinite Joy overflows and evolves into the universe."

It is the pang of separation that spreads throughout the world and gives birth to shapes innumerable in the infinite sky.

It is this sorrow of separation that gazes in silence all night from star to star, and becomes lyric among rustling leaves in rainy darkness of July.

It is this over-spreading pain that deepens into loves and desires, into sufferings and joys in human homes, and this it is that ever melts and flows in songs through my poet's heart.—

*Gitanjali*, 84.

Further, just as a poet in giving shape to his poem to the overflowing abundance of his heart—often unconsciously, sometimes with deliberate effort—produces a work of art, wonderful for its varied yet ordered rhythm, wonderful for its innate law with perfect unity of sense and words, so also in the universe, which is the evolution of the Supreme Spirit, is immanent a perfect reign of law, which it is the business and glory of science to discover and formulate. Just as there is law and order in the music of the poem, so are there a law and an order immanent in the universe, which constitute its music. The laws of nature constitute the rhythm of the world poem. The element of law is essential to a poem. If there were no regularity in it, no

rhythm in it, obviously, it would be a hopelessly chaotic thing. The ideas fused in emotion which are the soul of the poem would in vain contend with their ungainly garb. The inherent logic of the poem, the inward dialethic of it, demands an adequate expression, and this expression is impossible unless there be law in it. This analogy applies to the world poem. The law of nature immanent in the universe makes the rational evolution of the Supreme Spirit possible. This law is one of the indispensable conditions of His expression. But this does not mean that the Supreme Spirit is bound by external fetters. Going back to the analogy of the poem—just as the laws of rhythm and technique are a means of realisation, a condition of freedom, freely chosen, self-imposed, and inherent in the nature of expression, so also the laws of nature do not fetter the Supreme Spirit, but are just a means, a help, a condition of His realisation. “Our master has joyfully taken upon himself the bonds of creation.”

This, I believe, is the philosophical meaning of law. Whether this is right or no, the element of law or rationality in nature has a profound human significance. As Green puts it, unless nature is a “single and unalterable system of relations” knowledge is impossible; nay, human life on earth is unthinkable. If the universe were an unearthly and chaotic dance of atoms, alien and unintelligible to the human mind, we could not subsist a moment in it. If we cannot know it, we cannot rely on it, and if we cannot rely on it, this is no place for us: we cannot live in this world, indeed we could not have come into it. If we cannot rely on the food we take, if it turns out, quite suddenly and irrationally, poison in our frames, if the earth suddenly and irrationally sinks beneath our feet, it is obvious that human beings will be reduced to the miserable and impotent and heart-rending struggles of those stuck in a bottomless morass, going deeper the more they struggle, to die at last a muffled and horrible death. As Rabindranath himself puts it,—“This unyielding sureness of reality sometimes crosses our will, and very often leads us to disaster, just as the earth invariably hurts the falling child who is learning to walk. Nevertheless, it is the same firmness that hurts him which makes his walking possible. Once, while passing under a bridge, the mast of my boat got stuck in one of its girders. If only for a moment the mast would have bent an inch or two, or the bridge raised its back like a yawning cat, or the river given in, it would have been all right with me. But they took no notice of my helplessness. That is the very reason why I could make use of the river, and sail upon it, and that is why, when its current was inconvenient, I could rely upon the bridge.”—*Sadhanā*, p. 60.

But not only does the law or rationality of the universe make human life possible, but also, it is the indispensable condition of the gradual realisation of the capacities inherited by man—to know, to love and to do. The rational character of the human mind and that of the universe makes imperative upon the human mind—as a condition of its own realisation—the reconstruction within itself, the making explicit within itself, of the rational system implicit in the universe. It thus becomes one of the supreme duties of man so to expand the range of his consciousness, so to widen the horizon of his interest, as at last to bring and grasp within his mind, “the whole choir of heaven and the furniture of earth.” Further, not only must he know all that there is, he must develop his will and expand his heart, in correspondence with the infinitely rich and various panorama of existence. It is his supreme duty to internalise the rational order of the universe, to have his mind kindled and irradiated by this actualisation, and to make his heart beat in tune with this creative throb of the universe,—to realise that—

The same stream of life that runs through my veins night and day  
runs through the world and dances in rhythmic measures.

It is the same life that shoots in joy through the dust of the earth  
in numberless blades of grass and breaks into tumultuous  
waves of leaves and flowers.

It is the same life that is rocked in the ocean-cradle of birth and  
of death, in ebb and in flow.

I feel my limbs are made glorious by the touch of this world of  
life. And my pride is from the life-throb of ages dancing in  
my blood this moment.—*Gitanjali*, 69.

The next poem is more turbulent and expresses the poet's soul swayed by the irresistible torrent of the world-rhythm.—

Is it beyond thee to be glad with the gladness of this rhythm, to be  
tossed and lost and broken in the whirl of this fearful joy ?

All things rush on, they stop not, they look not behind, no power  
can hold them back, they rush on.

Keeping steps with that restless rapid music, seasons come dancing  
and pass away—colours, tunes, and perfumes pour in endless  
cascades in the abounding joy that scatters and gives up and  
dies every moment.—*Gitanjali*, 70.

Thus when Oliver Wendell Holmes cried out, “Build thee more  
lofty mansions, O my soul,” he was expressing the authentic cry of  
the human soul to be clothed with the heavens and crowned with the  
stars.

The fundamental postulates so far spoken of, which alone can give meaning to human life, are the infinite capacities of man in the direction of truth, goodness and beauty, and the universe as a world poem, with a rational system immanent in it, constituting its rhythm. But there is yet another condition, also fundamental, and that is freedom of will. The nature of this freedom must be carefully analysed. In ordinary parlance, we mean by freedom absence of external constraint. Obviously, bound as we are by physical and natural conditions, we are not thus free, nor can become so. For, as Green puts it, we cannot overcome the necessity of nature, and every fancied effort to do so only calls forth a fresh exhibition of that necessity. What Green means is that we can never defeat natural laws in the sense of annihilating them. For example, it is a law of nature that in order to live, we must take food. It is clear we can never get rid of this law, and, if we try to defeat it by ceasing to take food, we only call forth, as Green says, a fresh exhibition of its necessity by being forced under the inverse aspect of the same law, that if we do not take food we die. But by freedom of will we do not mean freedom from natural constraint. We mean only the possibility, inherent in our nature, of internalising this constraint. It is possible for us to learn natural laws, to live in accordance with them, and, in living in accordance with them, to make them a means of our own realisation. We can now go a step further and include moral law as well. Moral laws, broadly, are the conditions which help us to actualise our capacities to know, to love and to do. At this point, it is important to note two uses of the word freedom, even in this higher sense. In one sense, it means the possibility, *the choice*, which God has granted to us of either realising or not realising our capacities to know, to love and to do. In this sense, all men are necessarily free, whether they are good or bad, whether their lives are harmonious or are wrecked by excesses or weakness of will. In the other sense, man is free only when he is moral. He is not free when he is a slave of particular, fleeting desires. Only when all the different chords of his being unite in a perfect harmony is he completely free. This sense of the word freedom is not opposed to the former, but is only a richer conception, which includes the former. The former emphasises the condition of choice, of open alternatives, the latter emphasises the good use of this choice.

Now a belief in such a freedom is essential to Rabindranath's system. "At one pole of our being, we are one with stocks and stones, at the other we are free." This comes into line with the idealistic tradition—indeed, *Sadhanā* and *Gitanjali* are the most

beautiful and eloquent expression of Absolute Idealism in all literature and all philosophy. Green had said that man is "the reproduction of the Eternal Consciousness under the limitation of physical and natural conditions." Rabindranath holds the same view. Christ declared the fatherhood of God, St. Paul emphasised the sonship of man, and the Upanishads asserted that the human soul is a manifestation of the Supreme Soul. (It seems to me that when we rise into higher regions of thought, there is no east or west, ancient or modern—there is only one humanity and one truth) By virtue of being literally the incarnation of God, man has the unique privilege of having the possibility in Christian language, of direct "communion with God." In other words, God has created man "in his own image," has granted him the glorious privileges of freedom and self-consciousness, in order to have the joy of perfect obedience, freely and willingly offered in fulness of love and adoration. When that consummation comes, man will have shed his finiteness, and in realising himself will have realised God. The Grand-father in *The King of the Dark Chamber* bursts into a song which expresses that sublime idea of Kant's of the "Kingdom of ends," where everyone is sovereign and no one is subject. Here is the noble poem :—

We are all Kings in the Kingdom of our King.

Were it not so, how could we hope in our heart to meet him !

We do what we like, yet we do what he likes ;

We are not bound with the chain of fear at the feet of a slave-owning King.

Were it not so, how could we hope in our heart to meet him !

Our King honours each one of us, thus honours his very own self.

No littleness can keep us shut up in its walls of untruth for aye.

Were it not so, how could we have hope in our heart to meet him !

We struggle and dig our own path, thus reach his path at the end.

We can never get lost in the abyss of dark night.

Were it not so, how could we hope in our heart to meet him !

This position can be summed up thus.—The universe is the expression of God's love. Man is the son of God. His aim is, therefore, to come into his true inheritance, so to expand his nature as to make the whole universe his own expression. This is his worship of God, this is his consummation. It will be possible for him to do so, since the nature of things is fitted, so to speak, for that scheme. Nature is rational and he himself is rational and free. Further, he is a spirit, and demands expression. The universe is the expression of the Supreme Spirit, whose incarnation he is. His realisation,

therefore, means the coming into his spirit and becoming its expression of the universe which was the evolution of the Supreme Spirit. When that supreme culmination is reached, the Kingdom of God will have come upon the earth, and every man will have become king and subject at once, because "God's will will then be performed on earth, as in Heaven." This is the "far-off divine event," towards which Tennyson, like all great philosophers and mystics and poets, dreamed that "the whole creation moves" through centuries of struggle and bloodshed, through aeons of thought and striving.

M. A. VENKATA RAO.

(*To be continued*)

## ECONOMIC ASPECTS OF THE GEOGRAPHY OF SWITZERLAND.

THE land-locked position of the Mysore State is a circumstance that is very much regretted by those pessimists who do not seem to realise that its effects can easily be overcome if only the average man learns to be more persevering and self-reliant. The geography of several parts of the world presents features similar to our own, but the inhabitants of those countries have not philosophically accepted the inconveniences of their natural environments, but in the wake of advancing progress have modified them in such a manner that those natural conditions have been made to serve their ends and profit them.

A study of Switzerland should bring both interest and profit to us—a country resembling our own in certain points and yet different in several respects. Switzerland has to contend with nature in the matter of industries and trade, yet the triumphs achieved by this relatively small nation, smaller in area and population than our own, are very remarkable. The country is surrounded by very formidable mountains. Our mountains stand like pygmies when placed alongside the snow-capped Alps and the Jura. There is practically no mineral wealth in the country, and the want of coal is really woeful, but water power is so universal, so constant and so strong that manufactures have become an important feature of the country. The rivers are far too tempestuous to be navigable. The country is land-locked. It is no wonder then that the struggle for existence was very keen in early days. But the self-reliant Swiss would not give way to despair. He thought of the abundant water power of Switzerland as his last refuge, and made capital of it by turning all his energy to the development of manufactures until at last Switzerland relatively to her size began to compete with England, Belgium and France.

Character, natural ability and a very good educational system account for the prosperity of the Swiss. They are sinewy, robust, quick, shrewd; they are persevering, fearless, bold and self-reliant; they are simple in their habits, artless in manner, pious and strongly conservative. They are humane and very benevolent; ever exposed to danger, their struggle with nature for the supply of their daily wants has increased their strength of body, brought out their mettle and quickened their natural intelligence.

Switzerland consequently has produced many men of repute in science, in literature and in philosophy. Among scientists may be mentioned Agassiz, Studer and Dr. Ferdinand Keller. In literature we have Vinet and Keller, the latter called the Shakespeare of Romance. Amongst painters are Calame and Bocklin, while Gustave, Weber and Auber have a world reputation for music. Basel prides herself on her naturalists and mathematicians—Merian, Bernouli, and Euler; Zurich can boast of her botanists, Scheuchzer and John Gessner. Von Muller was a brilliant historian. A perfect stream of Swiss intellect poured into Germany and quickened German nationality. Heinrich Pestalozzi, the philanthropist and educationist, was a Zurich man; Voltaire and Rousseau, the great philosophers, were also of Swiss extraction.

Switzerland is also celebrated for the excellence of her educational institutions. Consequently every year there is a large influx of young persons from all parts of the globe who go to study at the universities of Basle, Berne, Fribourg, Geneva, Lausanne, Neuchatel and Zurich or at the polytechnical schools or the commercial universities of Lausanne, Geneva and St. Gall. The Federal Polytechnicum at Zurich and the numerous professional schools at Winterthur, Burlorf, Bienna and Locle are resorted to by bands of young aspirants from abroad for professional distinction. At Zurich one may study architecture, forestry, engineering, surveying, chemistry, pharmaceutics and agriculture.

Switzerland is beautiful and has a genial climate, and her pedagogical reputation is world-wide. What wonder is there that numbers of people come to study there from all parts of the world, so that all the public educational institutions are crammed and private resources have of late been devoted to the establishment of educational seminaries? These private schools are residential institutions. Here, besides general instruction, modern languages are taught, and the physical development of the youth is insisted upon. Every boarding school is provided with spacious grounds for football and for tennis. For the benefit of children with weak health, special schools are opened at high altitudes, as at St. Moritz, Davos, Arosa, and Zuoz. There are countless primary and secondary schools, but their technical and trade schools are particularly good.

The valleys of Switzerland are of surpassing beauty and grandeur. It is a fashionable thing for people of European countries to spend their summer in the Swiss mountains. They come to climb the high peaks. Scenery is a great source of wealth to Switzerland. Millions of tourists visit the country to enjoy its incomparable mountains, landscapes, waterfalls and glaciers, and spend heaps of money—nearly five million

pounds a year—giving employment to a great number of local servants and guides. The Alpine railways are a marvel of engineering skill, witness the St. Gotthard Line with its fifty tunnels, some of which extend over a distance of ten miles.

It should not be supposed that the illustriousness of Switzerland depends merely upon its picturesqueness and natural grandeur. The country has certain very paying industries. There is no desire to produce a large quantity of cheap stuffs, but manufacturers seek to gain repute for the excellence and fineness of their goods. Home industries are characteristic of Switzerland. It is there that the largest amount of work of this kind is done. Thousands of silk hand looms and embroidery machines turn out the finest products in the homes of the operatives, and we may, in passing, ask our pioneers of "Home Industries" in Mysore what comparable triumphs they have achieved. Watch-making has steadily extended, partly owing to specialisation in certain subsidiary branches which have furnished it with the necessary materials. The improvement made in the screw industry has revolutionised watch-making and similar industries, the optical industry, the manufacture of precision instruments, gramaphones, dictaphones, type-writers, electric apparatus, etc. As the result of the "metrical" screw pitch, everything is turned out to the hundredth part of a millimeter. There seems to be a factory manufacturing automatic pivotings and axles of compensating balances. The manufacture of the finest kind of drills is another speciality, and experts know what inestimable services these drills have done for watch-making, jewellery and fine machinery.

Swiss water turbines are well known; the Swiss have attained a high degree of development in the building of these. This is evidently due to the fact that the Swiss have to concern themselves with the utilisation of their natural resources to the utmost extent.

What is commonly known as Portland cement contains much of asbestos fibre. This cement is indestructible and resists the effects of weather to a great extent. The Swiss have patented a kind of building material out of this cement which can be used as roofing material. The Swiss Eternit Works, Ltd., Niederurnen, make asbestos cement slates, flat sheets and cement corrugated sheets which do not split, crack, decay or contract. On the other hand, with the lapse of time they improve and become harder. Another beauty about these products is that they can be worked with common tools by ordinary mechanics. Swiss asbestos slates are very popular for the roofs and frontage of houses. They provide water-tight roofing. Besides this, buildings employing asbestos material throughout are fire-proof and free from vermin.

There is, of course, a profusion of flowers in Switzerland. An active and thinking people will turn everything to good account, and that is what the Swiss have done. Swiss honey is justly celebrated. Cattle grazing is a distinctive Alpine industry. When the snow melts in the spring, herds of cows are driven to the highlands to feed there till the frost compels them to return to their winter provender of hay, which is made ready during the interval. Swiss cheese and condensed milk have a world-wide reputation.

The report of the Swiss Department of Public Economy gives the statistics of the number of factories and of hands employed in Switzerland in 1918. There were 9,327 establishments and 381,170 hands working here. The figures for the various industries are as follow:—

INDUSTRY	No. OF ESTA-BLISHMENTS	HANDS		TOTAL
		Male	Female	
Cotton	..	313	8,585	26,043
Silk	..	211	6,788	30,266
Wool	..	66	2,585	6,696
Linen	..	31	411	1,356
Embroidery	..	828	7,932	22,855
Other textile industries	..	129	1,430	4,563
Clothing and outfit	..	1,031	11,279	36,169
Foods and table luxury	..	791	13,573	27,187
Chemical industries	..	270	14,230	17,764
Power Stations	..	276	4,705	4,713
Paper	..	700	12,798	18,903
Woodworking	..	1,325	21,954	22,864
Metals	..	902	30,961	36,543
Machinery	..	842	61,986	65,803
Watches and jewellery	..	1,222	25,376	46,475
Mineral matters	..	390	11,817	12,970
Total	..	9,327	236,410	381,170

What a sign of prosperity in such a small kingdom! Between 1913 and 1918 there is an increase of 40,000 factory hands, notably in the machine, metal, watch and chemical industries.

The following are the chief exports from Switzerland:—printing paper and cardboard, woollen fabrics of light weight, rubber and elastic fibres, knitted shirts, handkerchiefs, perfumes and cosmetics, enamel colours, varnishes, lacquers, embroidery and watches. The Swiss linen industry is thriving. They make cloth for blinds, mattress tickings drill, etc. Glues for joiners, painters and plasterers are also made. The Swiss silk hosiery industry has made great progress in the manufacture of silk knitted ladies' jackets, fine models of which they sell at

comparatively low prices. Safety razor blades, folding scissors, embroiderers' scissors, pocket knives, pencil sharpeners, chains, bracelets, medallions in gold and silver, dog collars, satchels and portfolios of leather, serums, vaccines and pharmaceutical specialities are other articles of manufacture.

Constitutionally the history of Switzerland is unique and very interesting. The institution of the Referendum is a triumph of democratic advancement.

It is really interesting that a handful of people should have organised themselves so precisely that to-day the Swiss have to rank among the foremost manufacturing nations of the world.

Why should we not take a lesson from this tiny country ?

G. S. SUBBA RAO.

## HISTORY OF THE THEORY OF ELECTROLYTIC DISSOCIATION.

### III.

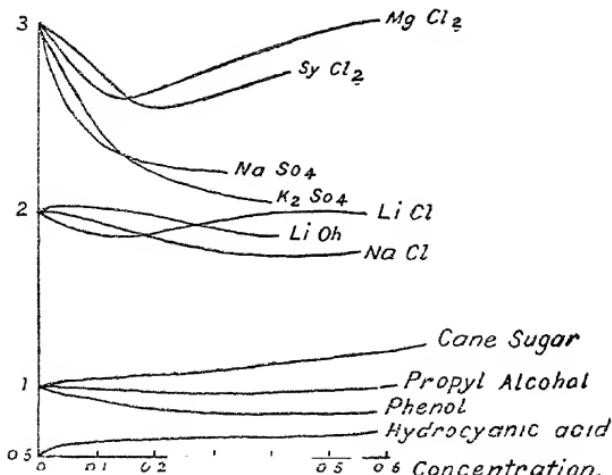
IN 1883, Arrhenius investigated the conductivity of electrolytes at different dilutions and came to the conclusion that the molecular conductivity increases with dilution because: (1) electrolytes consist of conducting and non-conducting molecules, (2) the number of conducting molecules increases at the expense of the other, non-conducting, molecules on dilution and *vice versa* on concentration, and (3) at infinite dilution all molecules are conductors. This hypothesis—the germ of the electrolytic dissociation theory—led him to the following chief conclusions. “The molecular conductivity at infinite dilution is an additive property for all electrolytes and not only within certain groups of electrolytes of similar composition, as maintained by Kohlrausch for the molecular conductivity of diluted electrolytes. According to the thermo-chemical data given by Berthelot-Thomsen, the stronger an acid is, the greater is its molecular conductivity, the nature of which is characterized by Williamson and Clausius. At infinite dilutions, therefore, all acids must be of the same strength. . . . When a salt, such as potassium ferrocyanide,  $K_4Fe\overline{CN}_6$ , the ions of which are  $4K$  and  $Fe\overline{CN}_6$ , enters into a chemical reaction with another salt in aqueous solution, there are formed only *potassium salts* and *ferrocyanides* but not ferrous or ferric salts, because the result is always a re-arrangement of the ions.”

Such were his conclusions, drawn from rather small experimental data, and his colleagues refused to take notice of his ideas, “which seemed absolutely incompatible with the prevailing conceptions regarding the chemical nature of salts.”

In 1884, appeared his memoir and very soon came the support of Ostwald. The experiments of Thomsen had already shown that the heat of neutralization of strong acids with strong bases at high dilution is very nearly the same for all acids and bases in equivalent quantities. Now, Ostwald showed that the molecular conductivity of acids is proportional to the velocity of reactions in catalytic processes (inversion of cane-sugar, hydrolysis of esters) and that the relative strength of weak acids, as compared with that of strong acids, increases with dilution, so that all acids show a tendency to become of equal strength

at infinite dilution. These alone were insufficient to resuscitate the Williamson-Clausius hypothesis :—that salts, including acids and bases are, to a great extent, dissociated into ions. Fortunately, he had not long to wait for further evidence. As we have seen, in 1886, Van't Hoff published his memoir on the analogy of dilute solutions to gases. There he showed that Raoult's measurements on the freezing points of aqueous solutions pointed to the fact that the influence of one molecule of a salt — $\text{NaCl}$ ,  $\text{SrCl}_2$  — in great dilution is double or treble that of a simple molecule (alcohol, phenol, sugar) as shown in the curve.

### Molecular depression of Freezing point



As early as 1862-1864, V. Pehal and V. Than experimentally showed that ammonium chloride or phosphorus pentachloride are dissociated, when vapourized, into two molecules, viz., ammonia and hydrogen chloride or phosphorus trichloride and chlorine, respectively. From analogy to this, Arrhenius explained the abnormal freezing point, etc., as due to the dissociation of potassium chloride into its ions: K and Cl.

"On these four strong foundations: (1) the freezing point, (2) the electrical conductivity, (3) the chemical reactions and (4) other additive properties of solutions of electrolytes, as well as the strength of acids and bases, it was possible to erect a thoroughly solid building capable of sustaining attacks from without and this building is the *theory of electrolytic dissociation*, first enunciated in 1887."

Briefly, the theory states :

(i) when acids, bases and salts are dissolved in water, they break down or dissociate into ions,

(ii) each compound dissociates into a positively charged part—cation—and a negatively charged part—anion,

(iii) these charged atoms or groups of atoms exist in solution *free* as regards their independent, the necessary restriction being that the total number of unit positive charges carried by the cations must at any moment be equal to the number of unit negative charges carried by the anions,

(iv) as regards the conformity to the laws of osmotic pressure, etc., and of mass action, the effect of these ions is just like that of the undissociated molecule.

At first, the theory met with much opposition, partly due to misunderstanding, but "they were met with severe blows, chiefly by Ostwald, and the 'wild army of the Ionians' (Hortschmann's comical expression) spread fear where it appeared. At the same time, the theory was developed in detail, chiefly through the work in Ostwald's laboratory."

It was clear from the theory of Van't Hoff, that the law of Guldberg and Waage (law of mass-action) ought to be applicable to the change of dissociation with dilution. This was proved to be true for weak acids and weak bases by the work of Ostwald and Bredig (1888). The law of mass-action—called Ostwald's dilution law in this special case—is not in accordance with the change of conductivity of strong electrolytes with their dilution. Many attempts have been made by Rudolphi, Van't Hoff, Storch, Gosh, Washburn, Wieland and others to eliminate this difficulty. Further, whereas the catalytic activity of weak acids is diminished by the addition of a salt of that acid (common anion), in accordance with the law of mass-action, the catalytic activity of strong acids is increased by the addition of their neutral salts (common anion) and that of weak acids by the addition of strong neutral salts (no common ion).

When Arrhenius put forward his views experimental investigations were necessary to solve also other problems, as the derivations exhibited by strong electrolytes and non-aqueous solutions; the question of hydration or solution of the ions; the electromotive activity of the ions; the chemical activity of the ions and the relationship between colour (more generally absorption spectrum) and constitution of electrolytes.

All these problems have now been brought much nearer solution and some have been practically solved.

Among the outstanding achievements, may be mentioned : (i) Nerust's theory of electromotive force ; (ii) the enunciation :—*Ceteris paribus*, the ionizing power of a solvent will be greater, the higher its dielectric constant—by Nerust (1893) and in the same year, but later, by J. J. Thomson ; (iii) the investigation of Walden (1906) on the relation between the ionizing power and other properties of solvents ; (iv) the experimental investigations of Washburn and Wieland in America (1918) and Gosh in India (1918) on the exact degree of ionization of strong electrolytes.

I shall now summarize the latest achievements, experimental and theoretical, in the theory of electrolytic dissociation.

1. *Neutral salt action.*—For many years, it was assumed that, at least as far as electrolytes were concerned, only ions entered appreciably into reaction and that only the H' ions were catalytically active ; but the fact that neutral salts increased the catalytic activity of strong acids remained unexplained. The theory explains the decrease of dissociation and increase of activity of a weak acid by the addition of a neutral salt of a strong acid, (no common ions) as hydrochloric acid, but not that of a strong acid by the addition of a strong base (as NaCl to HCl).

This peculiarity has been investigated by Spohr, Arrhenius, Senter Acree, Johnson and others, and experimental evidence has been adduced to the view that *not only H' ions but also the undissociated molecules of strong acids take part in the reaction*. This is the case with rather concentrated solutions, because the effect is too small to be measured at smaller concentrations than 0.1 Normal. For dilute solutions, of course, the catalytic activity is proportional to the concentration of the hydrogen ion, as the theory demands.

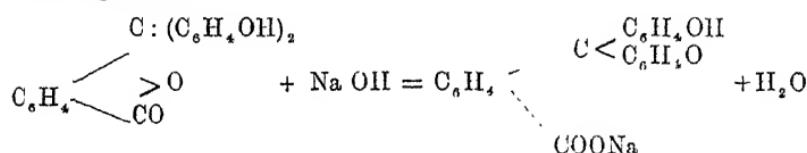
2 *The Deviation of strong electrolytes from the law of mass-action*—From the inauguration of the theory there remained a grave difficulty : that the law of mass-action does not apply to strong electrolytes. It must be decided whether the abnormal behaviour is due to the ions, to unionized molecules or to both. Arrhenius suggests that even before the molecules are dissociated, their ions have a certain degree of individuality and act as if dissociated and this to a higher degree the greater the dissociation constant  $K$  is. At very great dilutions, however, the law of mass-action holds good. Through the investigations of Washburn, Wieland and others it is probable that the ions bind rather great quantities of water which must be taken into consideration. Much work remains to be done before a clear idea can be formed regarding the exact magnitude of the deviations at higher concentrations.

3. *Non-aqueous solutions.*—A number of formulæ\* have been proposed from time to time, to represent the degree of dissociation and concentration of strong electrolytes. The one, which has met with general acceptance, was put forward by McDougall (1912) and independently by Kraus and Bray (1913):

$$\frac{m^n c}{1-m} = K + k (cm)^n \text{ where } K, k, \text{ and } n \text{ are characteristic}$$

constants obtained from their observations on strong electrolytes dissolved in twenty-six different solvents. Kraus and Bray's formula does not agree with "the very trustworthy data obtained by Kohlrausch and Malthy with aqueous solutions" but is very widely applicable to non-aqueous solutions.

4. *Colours of solutions.*—We know that with an uncoloured solvent, as water, and one uncoloured ion, all solutions of the salts with a common coloured ion (all copper, and all cobalt salts and all permanganates) have the same colour. Ostwald extended this theorem to indicators in which case the acid or the base is very little dissociated. The absorption spectra of the salts of the same acid or base are all identical but very different from that of the weak acid or weak base. From the work of Hantzsch (1908) it seems probable that the difference is due to structural changes. For instance, the often used indicator, Phenolphthalein reacts with sodium hydroxide in the following manner:—



Phenolphthalein (weak acid)  
—benzenoid form.

Sodium salt of Phenolphthalein  
—Quinonoid.

Leaving aside structural changes, Wright (1911) has found that strong acids exert the same absorptive power as their salts, weak acids are less absorbent than their salts and generally, a molecule capable of

$$*\frac{m^n c}{(1-m)} = K \quad (\text{Ostwald}) \quad m = \text{degree of dissociation.} \\ K = \text{dissociation constant}$$

$$\frac{m^n \sqrt{c}}{(1-m)} = K \quad (\text{Rudolphi})$$

$$\frac{m^n c}{(1-m)^2} = K \quad (\text{Van't Hoff})$$

$$\frac{m \cdot c^{1-n}}{(1-m)^n} = K \quad (\text{Storch}) \quad n = \text{constant for an electrolyte}$$

ionization is more absorptive than a similar free ion or a molecule incapable of ionization.

Frequent reference has been made to the circumstance that copper and cobalt salts exhibit the same colour in very dilute solutions, in concentrated solutions, and in the solid state when with water of hydration, but the colour changes in a marked degree on dehydration. Evidently, the hydration plays the most prominent rôle and it may be concluded that the hydrated ion has the same colour as the hydrated molecule.

In 1915, Snethlage, from a study of the investigations on esterification, hydrolysis, molecular weight determination, electric conductivity, absorption spectra, etc., brought forward evidence to prove that the theory of electrolytic dissociation is not applicable to solutions of electrolytes dissolved in methyl and ethyl alcohols and water. He suggests that the electrolytes dissolved remain in an undissociated condition. By a discussion of recent works on the same subjects, Dhar concludes that *the theory of non-dissociation* proposed by Snethlage is not tenable. "A theory should be the most practical exposition of facts" and the important criterion for judging every scientific proposition is the test of semiceability. Judged from this standpoint, Snethlage's hypothesis cannot be of much service since it cannot explain satisfactorily all known facts with regard to electrolytes. But the services rendered by the theory of electrolytic dissociation in the field of theoretical and analytical chemistry are innumerable and to enumerate them is to review the whole experimental work in chemistry, during the last thirty-three years. "Science is nothing without generalizations. The suggestion of a new idea or the deduction of a law supersedes much that had previously been a burden upon the memory, and, by introducing order and coherence, facilitates the retention of the remainder in an available form." These things may be said with full justice of the theory of electrolytic dissociation.

T. S. NATRAJAN.

## THE DEVELOPMENT OF THE ENGLISH LANGUAGE.

THE history of a language is the history of the race or people speaking that language ; and naturally the history of the English language is the history of the customs and manners, the thought and civilisation of the English race from the earliest days of the Christian era up to the present time. Just as a geologist fixes the age of a rock by means of the various strata of earth it contains, so also the linguistic historian finds in the history of words a summary of the progress of the nation in all its spheres of activity.

Tracing the history of the English language backwards, we find it in its most primitive condition in the middle of the fifth century A. D. When the Jutes, Angles and Saxons crossed the North Sea and landed on the shores of Britain they were still in a semi-barbaric condition. Their religion was heathen consisting mainly of the worship of such gods and goddesses as Woden and Thor and Frija, traces of which are still left in our words Wednesday, (*i.e.*, Woden's day), Thursday (Thor's day) and Friday (Frija's day); and their admiration was for physical valour and nothing else. Hence it is quite in the nature of things that their vocabulary was of an exceedingly practical character, consisting mostly of words representing concrete things. Abstract terms were very rare and connectives were few ; while of course in the literature of this period we find a glorification of the purely active life.

But they were not to continue long undisturbed. The invasion of the land by the Danes was a factor of no little significance. They were from Denmark and Scandinavia, the inhabitants of the latter being known as the 'White Strangers,' and those of the former as the 'Dark Strangers.' (The familiar Scotch proper name Mac Dougall means literally the Son of the Dark Stranger.) The Danes attacked in large numbers, and plundered towns and cities for a long period, until they were brought under control and peace was concluded by Alfred the Great. Under him there rose a strong monarchy. The kingdom of Wessex became pre-eminent, and the West Saxon dialect gained pre-eminence, a proof of which lies in the fact that the older poetry of the land was translated into this dialect, and in it literary prose for the first time began to be written in the land, witness Alfred's translation

of the *Gregora Pastoralis* and the *Anglo-Saxon Chronicle*, as well as the Codes of Law and the Proverbs of Alfred.

This flourishing state of affairs was again changed by the middle of the eleventh century. The Battle of Hastings was fought in 1066 and from that date we have the influence of the Norman Conquest of England. The Normans were really the North-men who had come and settled in France: as the French were the more cultured race these North-men were absorbed by them. As a result, they left their native Germanic tongue and adopted French as their language. The influence of Norman-French was highly beneficial to the vocabulary of the English Language. The Normans introduced with them new ideas of philosophy, religion and science; and the problem was how these ideas were to be expressed in English. There were but two courses open—either to coin words from existing sources or to borrow the Norman words wholesale and pass them into current usage. Certainly the former was the better method, and it was adopted with great success. The new terms were analysed and their ideas translated into English; and the words thus coined were marvellously expressive. For instance ‘Arithmetic’ was called ‘Rim crafτ’ (‘Rim’ in old English meaning Number). Astronomy was called ‘tungol-æ’ or star-lore (tungol meaning star and æ meaning law or lore); and so on. Still for a time the language of the conquerors had the upper hand and all government documents were either in Latin or in Norman-French, the humbler English being in vogue only among peasants and the country folk. However the wind veered round and as the Normans were far fewer in number than the English, the English tongue was eventually restored to its legitimate importance, and in 1362 a law was passed stating that all proclamations should be in English. About this time too there came to the throne of England a sovereign who had little or no knowledge of French. The loss of Normandy was an additional help in this progress, while the fact that Edward III was warring against France did a good deal towards unifying the nation at home and welding it into one homogeneous whole.

Thus it was only in the fourteenth century that the various strands of the English vocabulary were united; and the result is that English Literature may well be said to begin from this date, Chaucer being the Father of English Poetry. He was the first man of genius who handled what may truly be called the English language and turned it to such excellent uses. Language is more or less like a musical instrument, and the harmony that may be extracted from it depends at least as much on the skill of the musician who handles it as upon the capabilities of

the instrument itself. Chaucer did not invent words any more than Handel or Beethoven invented the instruments they used, but he was the first English poet to evoke from them the varied expression of human thought and experience. He is the first great universal poet in the English language. The nation was just then becoming conscious of its energies, and its dialects were fast disappearing to be replaced by the standard English of the Capital, which may be said to be, in the main, the ancestor of our modern literary English.

The fifteenth century may be said to be more or less a period of relapse. No great poetry was then produced, but it witnessed the slow beginnings of the English Drama, and it was the hey-day of ballad literature. But the main point to note is the development of prose through the introduction of printing by Caxton in 1476. On the whole, however, it was not a very favourable period for the growth of literature owing to the Wars of the Roses and other such disturbing factors.

At the end of the century comes the Renaissance influence in England. One of its most important results was the conscious attempt to improve the language. Englishmen questioned themselves as to why Greek and Latin were so well adapted for literary purposes and not English ; the two greatest treasures of English Literature, namely the work of Shakespeare and the Authorised Version of the Bible made their appearance now ; and yet it is curious to note that Lord Bacon published his Essays in Latin as well as in English, and feared that the modern tongues "would play the devil with Literature."

We pass on to the seventeenth century and see that the English language was spread more widely by means of the new colonies founded in America and in India. The small beginnings made earlier were enlarged, and English was well on the way to become a world language. Never did the English monarch dream when she granted the first charter to the East India Company that it was going to achieve such wonderful success in the years to come ; and even if there had been a thought that some European language was popularly to be spoken in India, Spanish or Portuguese or French would have been thought of and not the language of a few traders in Surat and its neighbourhood. But such are the miracles of Fate.

The union between England and Scotland was effected in 1707, and this led to greater national and linguistic unity. The task of the eighteenth century was to provide a good prose medium with the necessary virtues of precision and balance without cumbrousness or grandiloquence. This problem was solved, and the foundations of

a thoroughly efficient prose style were firmly laid by Addison, Steele and Swift in the earlier part and by Burke, Gibbon and Johnson in the latter part of this period.

The nineteenth century has witnessed the growth of democracy and free trade, and the ideas of liberty and fair competition have permeated the language. The century saw the spread of the English language in large portions of South Africa and the island continent of Australia. The famous Education Minute of 1832 by Lord Macaulay introduced English Education to the vast masses of India and, as a result, a large number of Indians are at present acquainted with the English language.

There have also risen serious rivals in the field. As German is recognised as the language of science and French as the language of diplomacy, they are both serious competitors with English for the position of the future world language, but they have started on the race some three hundred years too late!

In conclusion then the English language has had an unbroken development of twelve centuries and more. It is due to this that it has become such a facile and easily acquirable language. It has rid itself of the old troublesome series of inflexions and case-endings; it has become more and more analytic in character; it has become the acknowledged language of the commercial world; its vocabulary is daily increasing by assimilation of the best elements of other languages. Its syntax has become more and more economical; almost every part of speech can be used as any other; and the tendency throughout is towards simplicity. Its quality is that of downrightness, determination and commonsense, of power and humanity and delight in liberty and justice. Thus the probability of its becoming the world language is based equally upon its present wide dissemination and upon its own nature.

N. R. KEDARI RAO.

## INDIA IN SHELLEY'S POETRY.

SHELLEY, the poet of revolutionary idealism, found something congenial to his inquiring spirit in the land of spiritual visions and ideals, and his poetry contains many references, direct or indirect, to India and her people. It must be admitted that the knowledge of India his poetry reveals is neither wide nor deep, but rather shadowy and ill-defined. But he has somehow intuitively perceived the truth about India and has clearly expressed it in some of his poems. By piecing together the many references scattered in his poetry, we might even attempt to re-construct the vision of India as it lay embodied in the imagination of Shelley. It is India, the vast country of mighty mountains and streams, of tropical plains and forests, the land of mystery and enchantment, the home of beauty and variegated flowers, above all the mother of many gods and religions, that had taken firm hold of his fancy and found glowing expression in many a jewelled phrase and inspired line.

### II

The frequent references to Indian scenery that occur in his poems cannot escape the observation of any careful reader. Himself a passionate lover of the Alps, and living in Italy as an exile from his unsympathetic country, the majestic sublimity of the snow-crowned Himalayas and the ineffable beauty of the mountain valley of Kashmere and her sister the Punjab, watered by the mighty Indus and her tributaries, exercised a mysterious and spiritual influence on his soul. In the charming lyric beginning, "I would not be a king," dwelling on the fickleness of fortune and the transient nature of mundane power, he exclaims :

Would he and I were far away  
Keepin<sup>g</sup> flocks on Himalay !

Again in an unfinished drama, whose scene is laid on an island in the Indian Archipelago, in which an enchantress falls in love with an Indian pirate, and his devoted wife goes in search of him accompanied by a faithful youth, he asks :

Fairest stranger, when didst thou depart  
From the far hills where rise the springs of India ?

In another place he speaks of the scene being  
 Brighter than the morning light, and purer than  
 The water of the springs of Himalay.

But what seems to have haunted his imagination is the richness, delicacy and fragrance of the lovely flowers with which mother nature has luxuriantly beautified our enchanting land. He has fallen in love with the tuberose, the champak and the jasmine. In the mystic poem, *The Sensitive Plant*, the angelic Lady is represented as bearing

In a basket of Indian wool,  
 Into the rough woods far aloof,

The jessamine faint, and the sweet tuberose,  
 The sweetest flower for scent that blows.

Towards the close of the poem he says :

And Indian plants, of scent and hue  
 The sweetest that ever were fed on dew,  
 Leaf by leaf, day after day,  
 Were massed into common clay.

In the melodious lyric, *The Indian Serenade*, occur these two lines :

The champak odours fail  
 Like sweet thoughts in a dream.

Again, *The Woodman and the Nightingale* contains the following image :

As a tuberose  
 Peoples some Indian dell with scents which lie  
 Like clouds above the flower from which they rose.

Occasional similes suggested on the spur of the moment by a recollected idea indicate how the poet's receptive mind had been stored with, and impressed by images derived from the sights and sounds of this tropical continent. The supernatural spirit in *The Witch of Atlas*, playing sportive pranks on a lake, moves—

Even as a tiger on Hydaspes' banks  
 Outspeeds the antelopes which speediest are.

In *The Triumph of Life*, a mystic poem in which the panorama of life is symbolized in the form of the Life-Spirit riding in a chariot at the head of a triumphal pageant, the air is represented as being peopled with dim forms,

As when there hovers  
 A flock of vampire bats before the glare  
 Of the tropic sun, bringing ere evening,  
 Strange light upon some Indian isle.

The following simile forms part of one of the songs in *Prometheus Unbound*:

As the flying-fish leap  
From the Indian deep,  
And mix with the sea-birds, half-asleep.

Though the references to Indian scenery are more numerous there are a few touching on the life of the people which tend to show how he instinctively knew and appreciated the simple, faithful and self-sacrificing nature of the Indian character. In *Hellas*, a lyrical drama, an Indian slave, sitting beside the couch of the Sultan Mahmud and singing him to sleep, expresses her loyal sentiment in the following lines:

I breathe my soul on thee!  
And could my prayers avail,  
All my joy should be.  
Dead, and I would live to weep  
So thou mightst win one hour of quiet sleep!

How truly do the words suggest the selfless devotion and love of the Indian wife and mother in their daily domestic life! The much injured and maligned Rosalind in *Rosalind and Helen*, vindicating her steadfast love for her departed husband, compares herself to the unfaltering Satee:

The Indian on the pyre  
Of her dead husband, half consumed  
As well might there be false as I.

Shelley's information about India might have been partly derived from some globe-trotter's superficial account of his travels or the not unprejudiced version of some missionary. Living as he did in the times of Clive and Hastings, who had grown immensely rich by shaking the pagoda tree in India, he believed in the traditional rumours of the fabulous wealth of our country, and incidentally speaks in *Hellas* of "ten camel-loads of Indian gold." Probably he had also read stories about the inhuman sacrifice of innocent babies under the ear of Jagganath; for in *Queen Mab* he writes:

Whether hosts  
Stain his death-blushing chariot wheels, as on  
Triumphantly they roll, whilst Brahmins raise  
A sacred hymn to mingle with the groans.

There is also a passing reference in one of his juvenile poems to the unfortunate pariah:

Not the swart pariah in some Indian grove,  
Lone, lean and hunted by his brother's hate,

Hath drunk so deep the cup of bitter fate,  
As that poor wretch who cannot, cannot love.

A somewhat obscure allusion is to be found in the poetic epistle written in a light and humorous vein from Italy to Maria Gisborne :

Have you not heard  
When a man marries, dies, or turns Hindoo,  
His best friends hear no more of him.

It probably refers to the lot of a convert to Hinduism once he has been absorbed into the conservative fold of Hindu society.

### III

What is of abiding interest to us is Shelley's vivid realization of the spiritual significance of India and Indian civilization. He was all his life an incessant seeker after spiritual knowledge and experience. Himself a dreamer and visionary, the soaring philosophical truths of Hindu religion found a genuine response in his heart. Styling himself an atheist, he was one of the purest and most religious of men.

*Alastor*, an allegorical poem, treats of the wanderings of a pure and noble youth in quest of spiritual realization, imbued with "a thirst for intercourse with an Intelligence similar to itself." He roams through many countries in the hope of meeting face to face "the prototype of his conception," but is sorely disappointed, until he

O'er the aerial mountains which pour down  
Indus and Oxus from their icy cave,  
In joy and exultation held his way ;  
Till in the vale of Cashmire, far within  
Its loneliest dell, where odorous plants entwine  
Beneath the hollow rocks a natural bower,  
Beside a sparkling rivulet he stretched  
His languid limbs.

Here for the first time he feels the divine thrill of hopes "that never yet had flushed his cheeks." He sees the vision of a "veiled maid":

Her voice was like the voice of his own soul  
Heard in the calm of thought.

Knowledge and truth and virtue were her theme,  
And lofty hopes of divine liberty,  
Thoughts the most dear to him, and poesy,  
Herself a poet.

Is it not highly significant that the young poet sage, who had renounced his home and country in search of God, found the first gleams of spiritual light and peace in holy Cashmere, vouchsafed to him "by the spirit of sweet human love," a goddess in the form of a veiled maid ?

Another remarkable instance that confirms this view is found in *Prometheus Unbound*. In this sublime allegorical drama, unique in English literature, the hero Prometheus, the "saviour and strength of suffering man," is nailed to a steep rock and subjected to manifold tortures of body and mind by the tyrant Jupiter, but is victorious over his enemy at the fated hour. Strange as it may seem, the scene of this Greek story is laid in "a ravine of icy rocks in the Indian Caucasus," which other evidence shows to mean the Karakoram mountains, the source of many springs and rivers of the Punjab. In one place Prometheus exclaims :

Ye icy springs, stagnant with wrinkling frost,  
Which vibrated to hear me, and then crept  
Shuddering through India,

and a voice from the springs says in reply :

Never such a sound before  
To the Indian waves we bore.

During the period of his incarceration, his devoted wife Asia (what a characteristic name!) . . .

Waits in that far Indian vale,  
The scene of her sad exile, rugged once  
And desolate and frozen, like this ravine

After the final overthrow of Jupiter, symbolizing the victory of good over evil, Prometheus and Asia contemplate retiring to a beautiful retreat among the mountains to lead a holy and blissful life there. How reminiscent is the picture of some *asrama* on Mount Kailas or near Lake Manasarowar :

Beyond Indus and its tribute rivers, . . . .  
And up the green ravine, across the vale,  
Beside the windless and crystalline pool,  
Where ever lies, on unerasing waves,  
The image of a temple, built above,  
Distinct with column, arch, and architrave,  
And palm-like capital, . . . . .  
Beside that temple is the destined cave.

In the above sketch only direct references to India in Shelley's poetry are noticed, no mention being made of the many striking resemblances between the poet's religious views and the Vedantic philosophy. Truly he is "the most spiritual of English poets," and his spiritual home is India. It often strikes me that this "ineffectual angel" is the soul of some Hindu sage incarnated in the uncongenial atmosphere of an English squire's family to fulfil a divine spiritualising mission.

## REVIEWS.

*Mediæval Europe. Its Development and Civilisation.*—By Lynn Thorndike. Harrap. P.T.I. Agency, Bangalore. 15s. net.

THIS book with its interesting pictorial additions is a most attractive presentation of Mediæval times. It is a book for 'the student and the general reader,' and if the limited knowledge of the student and the general ignorance of the reader are not respectively increased and illuminated by its perusal then they are singularly inaccessible.

The author has made a praiseworthy attempt to present facts with the impartiality of an unprejudiced onlooker and at the same time to rob them of no jot of the interest that all *facts* can claim: and, though a voluminous writer of the present day once asserted that the truly impartial historian must hold in his heart a hundred fanaticisms, in a work of this type a great versatility of enthusiasms would tend only to confusion. On the other hand Mr. Thorndike's sober treatment does not want the human touch and in spite of the wide ground he has covered he betrays no signs of haste. Great institutions are shown to have been living forces and social systems the natural outcome of times and places and human needs, while great personalities are given due space and there is no divorce between men and movements,—and movements were not inconsiderable and men were giants in those days.

The book is an excellent foundation for the study of mediæval history. It gives perspective and establishes the necessary links between periods and countries and systems, and after going through it the reader should be ready for the enthusiasts of many fanaticisms, who will offer him his opportunity for private judgment.

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*The King of Ireland's Son.*—By Padraic Colum. Harrap. P.T.I. Agency. 7s. 6d. net.

THE King of Ireland's son is a pleasant person to meet in these days of troubled Ireland. He restores us to our old belief in the essential romance of his native land and in the happy endings to which all romance leads.

He goes on great adventures and masters all difficulties, as becomes a prince, even though he wins through with preternatural aid. Incidentally he tells stories, or hears them told, so that the book is a collection of adventures and romantic episodes.

It is all in the inimitable manner of the Gaelic story-teller. Its naïveté is the true note of a tale for children and should be a sufficient lure to lead the grown-up back for a space to the realm of magic steeds and distressed maidens and wise women, where he will meet such notable and inscrutable persons as Rory the Fox, the Crow of Achill and the Old Woman of Beare.

The Gaelic idiom has its own peculiar charm, and the Gaelic tradition is stored with elements of wonder and romance, and in the hands of Padraic Colum they quickly supply the magic that will transport us beyond our present selves and very far from the limitations of modern life.

The pictures, of which there are many, fulfil their part in the stories, and the book would be an unmitigated joy to any child. The man of discretion will buy it for his children and read it himself.

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*Satanism and the World Order*.—By Gilbert Murray. George Allen and Unwin. 1s. 6d. net.

THIS booklet contains an eloquent and impassioned plea for justice and freedom in the relations of Imperial States in the subject communities by one of the ablest and most accomplished of living writers. We Indians have a special reason to be grateful to Professor Murray for his manly and outspoken reference to certain recent incidents which are fresh in the minds of us all.

Satanism is the term applied by Professor Murray to characterise that mental attitude which looks upon the world order as an absolute evil. When widespread this belief is the result either of persecution or extraordinarily bad government. It is opposed to the teaching of almost all great moral philosophers, from Plato to T. H. Green, who have held that the world order is the expression of Divine Reason and that human goodness consists in conscious conformity with it. The systematic organization of society which we call the State has on the whole contributed to the perfecting of man. Any serious study of history will convince one "that the great pilgrimage of the spirit of man from the beginnings of history onward has been on the whole not only a movement from ignorance to knowledge, from collective impotence to collective power, from poverty of life to richness of life but also in some

profound sense a pilgrimage from lower to higher. And it will follow, in spite of constant lapses and false routes, which have to be corrected, that the road of progress is in the main a road onward in the same general direction ; that the better order which a reformer wishes to substitute for the present order must be a fuller realization of the spirit of the existing order itself. The belief does not rule out changes which many people would call extreme or revolutionary ; to the eye of the historian most revolutions are little more than a ruffling of the surface of life. But it does mean that a change which violates the consciences of men, a change which aims at less justice and more violence, at more hatred and less friendliness, at more cruelty and less freedom, has the probabilities heavily against its ultimate success."

Within its own borders the state is on the whole an organization for justice and freedom. In its relations, however, to other states, it is as yet mainly a fighting power, represented by diplomacy in its better moments and by war in its worse. Its relation, again, towards subject communities, when it has them, has inspired an appalling literature of hatred "dating at least from the eighth century B. C., in which unwilling subjects have sung and exulted over the downfall of the various great empires." In fact, the relation of empires to subject communities is the great seed-ground for those states of mind which have been grouped under the name of Satanism. This spirit is more rife to-day than it has been at any previous time and it is directed against all imperial Governments and particularly against Great Britain. "All through the Turkish Empire, through great parts of Persia, Afghanistan, from one end of the Moslem world to the other, there are *Mullahs*, holy men, seeing visions, and uttering oracles about the downfall of another Scarlet Woman who has filled the world with the wine of her abominations, and who is our own *Roma Dea*, our British Commonwealth, which we look upon as the great agent of peace and freedom for mankind. Scattered among our fellow-subjects in India the same prophecies are current ; they are ringing through Egypt (written before Egypt's autonomy was declared). Men in many parts of the world—some even so close to us as Ireland—are daily giving up their lives to the sacred cause of hatred, even a hopeless hatred against us and the world order which we embody." The sole possible remedy against this state of things consists in the courageous and sincere application of certain principles, which are not unknown things. "They have been laid down by the great men of the last century, by Cobden and Macaulay and John Stuart Mill, even to a great extent by Lord Salisbury and Gladstone. We hold our Empire as a trust for the

governed, not as an estate to be exploited. We govern backward races that they may be able to govern themselves ; we do not hold them down for our own profit, nor in order to use them as food for cannon. Above all, in our government and our administration of justice, we try to act without fear or favour, treating the poor man with as much respect as the rich man, the coloured man as the white, the alien as the Englishman." Above all a certain greatness of character, which at present seems lacking among the rulers of Europe, is necessary. "It may be recovered. We have had it in the past in abundance, and we probably have the material for it even now. If not, if for any reason the great democracies permanently prefer to follow low motives and to be governed by inferior men, it looks as if not the British Empire only, but the whole World Order established by the end of the War and summarized roughly in the League of Nations, may pass from history under the same fatal sentence as the great empires of the past—that the world which it ruled hated it and risked all to destroy it." There speaks the better mind of England and it will be well if her statesmen lay to heart these wise words and profit by them.

N. N. M.

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*The History of Social Development.*—By Dr. F. Muller-Lyer, London : George Allen & Unwin, Ltd. 18s.

It is scarcely necessary to say anything in praise of a work which comes to us with the recommendation of two such competent authorities as Professors L. T. Hobhouse and E. J. Urwick. It will be sufficient to say that Dr. Lyer's book is an admirable introduction to inductive sociology. Though it is the outcome of wide research and extensive reading, it is not overweighted with learning and it must be read by every one who is interested in the development of humanity and of its culture. Of special interest at the present time are the sections which deal with the organization of labour and the "Woman's movement."

Dr. Lyer does not content himself with furnishing us with an array of facts, he interprets their significance to us. Progress, hitherto, was concerned not with the well-being of the individual but with the perfecting of the social organization which was essential to success in the struggle for existence between the rival groups. This perfecting of the organization involved the subordination of the claims of the individual to the claims of society, for it is obvious that in the struggle for existence, the community whose members are faithful to it and are even prepared to sacrifice their lives for the common good, would have

an advantage over others whose members did not possess these qualities. It is, however, becoming abundantly clear that the "working classes" are becomingly increasingly conscious of the contrast between life "as it ought to be" and life "as it is." The conflict between socialism and individualism of which we hear so much in the present age, is an indication of this consciousness on the part of the masses. Truly understood, however, socialism is not opposed to individualism. If by socialism we mean rational co-operation in production and equitable distribution of the products of labour, then socialism in this sense is the indispensable condition of individualism, for it provides the individual with the sphere of power and freedom in which he can fully develop his capabilities. "For as a social being, man can only fulfil his destiny in a social way. That the richer classes lay more stress on individualism, and the poorer classes on socialism, is quite easy to understand; but from the sociological stand-point it is one-sided and false. The just expression for the striving after the happiness of humanity, if we want a word for it, must be 'social individualism.' The trend of future progress lies in this direction."

The most brilliant of living theologians has in his recent Romanes lecture given emphatic expression to his view that the idea of progress is a superstition which has invaded and vitiated history, politics, science, religion, and philosophy. Dr. Lyer assures us that a calm and impartial review of culture in the light of sociology would in no wise lead to a pessimistic conclusion. "On the contrary, we almost receive the impression that throughout the course of the tremendous drama of humanity there has been glimmering a secret plan of salvation and blessing, and that this development would not have shaped itself very differently if it had been guided by a purposeful power . . . After the enormous progress of the last two thousand years, we are justified in supposing that this future development will rise to undreamed of heights, and will lead on to an era of perfect culture, in the light of which all the phases of our present half culture put together will seem like a kind of childhood of the human race. Only in this coming age, when culture has fully blossomed out, will man be able to appreciate justly its value.

N. N. M.

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*A Visit to a Gnani or Wise Man of the East.*—By Edward Carpenter. (Pp. viii+67, re-printed and published by George Allen and Unwin, Ltd., London, 1920.)

THIS is an elegant booklet no less charming for its beautiful style than for its condensed and yet clear exposition of the essence of the

Vedantic Philosophy, the Real, All-knowing and Blissful Universal Consciousness, which forms the central idea of the various Indian Philosophical systems. While the West is distinctly individualistic in its thought, action and pursuit after final bliss through democratic ideals of life, the East merges its individualism in the Universal, and rising above the barriers of "Castes, Classes, all sense of superiority or self-goodness, of right and wrong even" and realising "the most absolute sense of Equality" exhibits the "germinal principle of western democracy so vividly active and at work deep down beneath the innumerable layers of Oriental social life and custom." The attainment of perfect self-government or Svarajyasiddhi, as termed in a Vedantic work of that name, treating of the attainment of the ideal of self-government by casting off the individual part of man together with its absurdities of inequality, exclusiveness, egotism, and conventional notions of right and wrong, is thus expressed by the author as the true ideal of self-government:—

" This sense of equality, of freedom from regulations and confinements, of inclusiveness, and of the Life that 'rests everywhere,' belongs, of course, more to the cosmic or universal part of man than to the individual part. To the latter it is always a stumbling-block and an offence."

This truth the author has found out not by reading books on Indian Philosophy, but by closely observing the life of a true Gnani, Guru Ilakknam, in Ceylon and by conversation with him on "Methods of attainment" and "Traditions of the ancient Wisdom religion." These two subjects are treated of by the author in the third and fourth chapters of the book, "Visit to a Gnani" and "Consciousness without Thought" being the titles of the first two chapters. The one characteristic deficiency which the keen mind's eye of the author has perceived in the truly democratic ideal of the Eastern philosopher is the entire absence of love or devotion to "humans," which is the chief characteristic of the Westerner's "larger sphere of life and consciousness." Of course, the idea of love has no place, as stated, in the consciousness of those few who have attained to the realisation of Svarajya. Nor are the Hindus wanting in the lower form of love. But that kind of love of Humanity as a political ideal is in the view of the author conspicuous by its absence in the life of the Eastern philosopher.

In the last chapter of the work the author is perhaps right in stating that so far as this world's wisdom is concerned, it cannot be considered to have been the monopoly of a single nation like India, but a common stock of knowledge of the whole of the ancient world, India, Asia Minor, Greece, and other nations.

The teacher's real name was Ramaswami and he acquired the name Ilakkanam on account of his proficiency in Tamil grammar and philosophy. While young he was a kind of confidential friend and adviser to the then reigning prince of Tanjore and was well up in traditional state-craft and politics. After having been initiated by Tilleinathan who himself was a follower of a traditional school of teachers, Ilakkanam did not, however, retire to the woods, leaving his family behind, but lived on quietly at home at Tanjore. Besides state-craft and grammar, he had some practical knowledge of law, medicine and even cookery, which he considered very important in view of preserving divine health. His views of astronomy, astrology, philology and physiology were of a primitive kind and he was a believer in alchemy and the influence of planets. He had no knowledge of the English language and sciences. He characterised the English Government as a kind of commercialism and seemed to think of them as hopelessly plunged in materialism. But their perseverance and love of justice and truth would, he thought, stand them in good stead.

This is the sum and substance of this short, but elegant booklet. As a sympathetic and unbiased exponent of a true Hindu Gnani's life and philosophy, Mr. Edward Carpenter stands unrivalled among Western critics of Eastern life and philosophy.

R. S. S.

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*La Canne de M. de Balzac, Le Lorgnon.*—By Madame de Girardin.  
(Siepmann's French Series. Macmillan & Co.)

THESE two small volumes by Mme. de Girardin are, as far as mere writing is concerned, among the best in Siepmann's French Series, which contains some good, some bad and some atrocious numbers. They are written in a crystal style; but they give of French society just that wrong idea which strangers are so apt to form of it, as brilliant, airy, scatter-brained and superficial. It is our oft-repeated conviction that side by side with the study of a nation's language should go the study of that nation's soul; and the soul of France, as far as literature is concerned, is revealed in her classic masterpieces, and there alone. The France of 1830 is something other than Mme. de Girardin's *salon*. We take this opportunity of deplored once again the policy of publishers who insist on digging up shop remnants for reproduction, instead of publishing the classics. Books and authors rightly relegated to oblivion by France herself have no business to be cooked up again, with uniformly laudatory prefaces, for the admiration of the foreigner, as if they represented the purest thought of France.

J. B. A.

*Montmorency* —By Frédéric Soulié.

STARTLING events, great sabre-thrusts, gloomy intrigues, fantastic heroes, present-day sentiments disguised in the garments of other days, slipshod history and a careless style—such are the contents of the “historical” novels of Frédéric Soulié. The present volume fulfils our expectations in all the above respects.

J. B. A.

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*A Text Book of Zoology for Colleges and Universities*.—By Dr. T. D. A. Cockerell, Professor of Zoology, University of Colorado. George G. Harrap & Co., Ltd., London. P. T. I. Agency, Bangalore.

DR. BATESON in his presidential address, which he gave at the Sydney Session of the British Association observed that the mental equipment of an administration ought to comprise a knowledge of the broad facts and principles of the Biological Sciences and such a knowledge seems almost imperative not only to the administration but to every intelligent citizen in the present time of social and political reconstruction. We have read this book with pleasure and have formed the impression that it is very suitable for the class of students whom we have in view. The Biological Sciences have been taught usually with reference to morphological details which repel the students whom its general theories may attract. We like the selection of subjects dealt with in the book and should have wished for a short chapter on the main facts of anthropology discussing the characteristics of the different races of mankind in a general sort of fashion. The omission, however, is not a serious one.

We should hesitate to adopt the book as a text in our colleges and universities though that seems to be the ostensible object of the author, but we would not hesitate to employ it in our high schools. The style is easy and the groups of animals dealt with are easily obtainable either for observation or for laboratory purposes. Several biographical chapters have been introduced and they distinctly add to the usefulness of the book. A knowledge of the great scientists, their life and work, is a source of inspiration and fires the zeal of the budding scientist. An omission of references to the great men was a defect in our authors of scientific teaching and the book, even in other respects is a most modern one.

Biology has now been introduced into the curriculum of High School studies where we should like it to be made obligatory instead of as at present being treated as an optional subject. Every system which does not embody a course of instruction on the broad facts and principles

of the science of life must be very defective. With a minimum equipment, it is possible to impart instruction in this department on the lines and methods suggested in the book, which are at once modern and popular. The author has omitted very wisely all references to debatable points and has included only verifiable knowledge. One great merit of the book is that it provides up-to-date information on biological and allied subjects interesting alike to students and the general reader. The would-be expert is not neglected for whom also there is enough material as a starting point.

Considered every way, we have no hesitation in saying that Dr. Cockerell's book is a very suitable one for High School and Intermediate students though the university student would go to other sources for his requirements.

C. R. N.

## EDUCATIONAL NOTES.

*An Honour School of Philosophy, Politics and Economics* has been voted for at Oxford University by the Congregation.

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*The Workers' Educational Association*, which has been in existence in Great Britain since 1903, has established a branch in Madras. The objects are in general to foster education among working men and women.

Mr. T. V. Seshagiri Iyer, retired Judge of the High Court, has consented to become President of the branch and several notable people to become Vice-Presidents.

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*The Muslim University, Aligarh*, is increasing the number of its students and of its staff. The University is fortunate in securing as professors distinguished men of notable attainments. One hundred and eighty-eight students have been sent up for the Intermediate examination of the Allahabad University and forty for the M.A. examination.

The ordinances of the Muslim University are to be laid before the court in a few weeks' time.

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*The Montessori System* is being developed and largely adopted in France. A workshop has been founded in Paris where the Montessori didactic material is made by mutilated and blinded French soldiers. The workshop is in touch with the infant schools where the method has been adopted and children freely visit the workshop and the soldier workmen, the schools. The workshop can produce six complete school equipments a month, the cost for each being 1,500 francs. Generous benefactors are encouraged to present the full equipment to schools, and in the devastated areas of France, Flanders, Corsica, Algiers and Salonika more than 160 schools have been thus provided.

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*Loans to Students*.—Melbourne University proposes to create a fund to be held in the State Treasury, and on which the State Treasury will

*We are asked to insert the following ---*The Lecture Department of the National Council of Y. M. C. Associations in India has a large amount of war equipment in the line of lantern slides which they have recently decided to place at the disposal of Y. M. C. Associations, Missionaries and welfare workers throughout India. The equipment consists of about 375 sets of slides on such various topics as Religion, Fine Arts, Useful Arts, History, Biography, Geography and Travel. There are more than 15,000 slides now available and they have begun the manufacture of slides in their own establishment. This guarantees a large variety of subjects to those availing themselves of this service. The terms call for payment of shipment charges to and from Calcutta by patrons and a slight charge of Rs. 2 per set per week to cover the cost of overhead expenses and of new sets which will be added to the equipment from time to time to increase the value of the service. More than 45 patrons are being regularly served by the Lecture Department already, and they announce that they are able to serve many more.

Missionaries interested in this service are requested to write at once to Waldo H. Heinrichs, 5 Russell Street, Calcutta.

## SCIENCE NOTES

COMPILED BY MR. B. VENKATANARANAPPA, M.A.

*The University Problem in London.*—At a meeting of the Old Students' Association of the Royal College of Science, held in September last, Professor H. E. Armstrong delivered an address, a portion of which referred to the system of university education as at present obtaining in London. He said that during his fifty years' direct experience of the London University system the talk had ever been of *examinations*, never of *learning*; that the methods of teaching were hopelessly stereotyped and that the teachers had never been free to teach, nor the students to learn, the one concern being to maintain the "standard" of the examinations as if there could be a fixed standard when knowledge was growing from day to day and that no two students were mentally comparable.

Philosophers, he said, insist that the main office of education was to develop and foster the altruistic spirit—a belief in truth, in goodness, in beauty, in each for its own sake, and that, therefore, we should believe in education primarily for its own sake as the source of our happiness, not mainly because it brings pecuniary advantage or preferment. From this point of view, he said, that the present university system was one of the most selfish, the most corrupting ever created, that it encouraged love of show and advertisement, the spirit of competition and commercialism. Teachers themselves, he said, would be loth to abandon the system; for being paid starvation wages, the pittance they gained from examinations was of consequence.

The Germans alone, he said, had grasped the problem of university education. At the degree examinations they only required proof of competent knowledge of the students' chosen subject together with a general knowledge of a couple of cognate subjects which the student had been allowed to select from a list. Whatever stones we might throw at German morals, we could not but admit, the professor asserted, that their system had given results in practice whilst ours had not.

The professor went on to say that the belief in the disciplinary value of this or that subject had long ceased to exist and that people were slowly but surely coming to admit that allowance must be made

for the extraordinary variation in the ability and the intellectual propclivities of individual students. He added that he knew several men who had greatly distinguished themselves as students in subjects which they had thrown entirely to the winds in later life, the study of which had been without the least influence on their mental development, and that the time spent upon the study was wasted. Many able students, he said, had the advocate's faculty of getting up a case for the time being and as quickly forgetting it when over.

Continuing, the professor said that the degree-hunger was upon us, that students demanded degrees and would have them at any cost. Should it be at the cost of their moral outlook and of much wasted time, or in recognition of honest, thorough work? Scientific workers, he said, desired to be designated by some distinct title and that even the American put aside his Republican feeling and was pleased to be called "doctor."

Professor Armstrong concluded his very instructive address by stating that a revolution in Education was needed to make it effective, that to merely mend and patch the old machine would not help us and that, therefore, new ideals should prevail. We must, he said, determine to go forward, putting self in the background and thinking only of national interests, that somewhere a leader must be found "to see and dare and decide, to be a fixed pillar in the welter of uncertainty."

#### NATURE.

*Psycho-Technics in Germany.*—One great problem in the war-ravaged Europe at the present time is to economize not only the scanty raw material but also the available human material for the gigantic task of reconstruction. In order that every person may render a maximum of service he should obviously be put into the right place.

The ideal method would be to make comprehensive tests and tell everybody previous to his entering professional life for which profession the candidate's personal gifts best fitted him. Though little has as yet been done in this direction, it has been found possible to solve the problem in a practical way for some professions, especially the ministerial trades, and to be able at the outset to discard the unqualified candidates.

Psycho-Technics is the name of the young science which has set itself the task of solving this and related problems and is already developing with surprising rapidity. There are already a number of industrial works, both in England and on the continent equipped with

their own psycho-technical laboratories for the selection of their apprentices and operatives, and in Germany there has been in existence for some time a psycho-technical research and testing laboratory conducted by Dr. W. Moede, one of the pioneers of the new science. The following is a very brief account of some of the tests applied at Dr. Moede's laboratory. The tests discover the physical, mental as well as the psychic fitness of the candidate; for, apart from intelligence proper, there are to be investigated a number of functions of a more psychic kind. The normal fitness, of course, lies outside the range of these tests.

As regards the activities of the senses the eyesight and hearing should be primarily tested. In place of mere visual powers a more complicated faculty is tested—the candidate's sense of proportions by means of various kinds of apparatus for halving lines and circles, adjusting right angles, etc. To test the candidate's sense of hearing a simple apparatus is used consisting of a weight, which by striking a block produces a noise depending upon the height of the fall, the candidate having to decide whether two successive acoustic impressions are of equal intensity.

The sensitiveness in the joints is the next point to be ascertained. A mechanic should be able to gauge accurately the pressure exerted by a tool. The keenness of the touch is tested in many ways: by means of a set of metal plates to be sorted according to the relative smoothness of their surfaces; of metal sheets to be sorted according to thickness; of a set of cubes of nearly equal dimensions to be arranged according to size. The candidate is further required to fit into one another a set of most accurately worked screws and nuts, and to pick out of a collection of mutually resembling objects those actually alike.

An extremely accurate apparatus is the Moede Touch Tester, which consists of a hardened and polished ring inside which a hardened and polished cylinder moves up and down. The candidate is asked to turn a micrometer screw until the cylinder surface is flush with the surrounding ring. Experiments made with this apparatus have shown those possessing the finest touch to be able to find out height differences of  $15/10,000$  of a millimetre between the two surfaces while a touch ascertaining differences of  $41/000$  of a millimetre still enables a man to perform the most delicate work.

Another faculty required for fine mechanical work is the calmness and steadiness of the hand. Dr. Moede tests this by a specially designed electrical apparatus by means of which the slightest trembling of the hand causes an electric bell to sound.

The muscle power and endurance of the hand are gauged by compressing a handle and spring, and recording the strength expended. To

investigate nerve steadiness the candidate is frightened by some means or other—sudden shots, luminous phenomena, etc., and a curve is traced in a manner similar to that in earthquake records. In this way the time taken by his nerves to come to rest is gauged. Presence of mind and promptness of decision are finally tested by means of a thousand-second clock. These tests relating to the working of the senses are supplemented by intelligence tests.

#### AMERICAN MACHINIST.

*Facts about Fasts.*—An'nt the recent remarkable case of hunger strike, the following account written by a doctor in the "Chemist and Druggist" will be found instructive.

In fasting, the changes by which energy is liberated in the body continue, but since no food is introduced the animal's own tissues are used up. The rate of wasting depends upon the amount of energy required for muscular work and for heat production. A person who remains at rest and keeps himself warm will endure a fast for a much longer period than one who does muscular work and exposes himself to cold.

In the course of a fast all the tissues do not waste away equally; the more essential parts of the body live upon the less essential ones. The heart, for example, hardly loses weight at all in the longest fast. It must live on the ordinary muscles of the limbs, which in their turn live on the stored fat of the body. This last, of course, varies greatly in different individuals. At the beginning of a fast the rate of wasting is rapid, but after a time it diminishes, and the animal lives more economically as regards proteins. So long as fats remain they are used in preference to proteins.

Fasting is the essential feature of the accepted modern treatment of diabetes. All food, with the exception of water, tea, coffee or bouillon, is withheld for seven to ten days until the urine is free from sugar. It is also the feature of a method of treating obesity extensively and successfully practised in India by a retired doctor of the R.A.M.C.

In fasting, hunger tends to disappear in 36 to 48 hours. The duration of a fast depends on whether water is withheld or not. If water is withheld death ensues in 10 days, but if water is taken the "hunger-striker" may remain alive for a very long period. Apparently authentic cases are recorded where persons have lived without any food whatever, except water, for two Calendar months. The older and fatter the individual, the better he stands starvation; and, given a healthy,

elderly man, with plenty of fat in him to start with, he will stand three weeks' fast with impunity.

A great deal of fasting is seen in the East and the following are some striking examples which came under the doctor's notice. One was a European who had reduced his weight from 20 to 11 stones by a "fast" extending over 6 weeks. He drank copiously of water, had tea with sugar, but without milk and as much fruit as he wished. He carried on his duties as an Engineering adviser of a Government Department during the whole of the "fast" and smoked three cigars a day. The second was a Hindu girl who was stated to have eaten nothing for six months. She was in a sort of cataleptic condition and appeared to resemble a hibernating animal. The third was a 'faqir' who lived in a remote cave and had obtained no food supplies of the ordinary kind for two years. Probably he had reverted to the dietary of the ape man.

#### POPULAR SCIENCE SIFTINGS.

*Tartaric Acid from Tamarinds.*—The August number of the Journal of the Indian Institute of Science contains a detailed account of the investigations carried on at the Institute by Professor J. J. Sudborough and Mr. P. N. Vridhachalam for the manufacture of tartaric acid from tamarinds. The following notes taken from the Journal will be found interesting and useful.

The quantity of tartaric acid imported into India for the period, 1914 to 1918 is estimated, on an average, at 60 tons per year, the value of the same being £14,532 or Rs. 2,17,980, calculated at Rs. 15 per £. Assuming that 10 per cent of the pulp could be recovered as tartaric acid and that 90 tons is the quantity that may be annually consumed in India, 900 tons of the pulp or 1,800 tons of pods would be required each year. As 7 trees yield about one ton of pods, about 13,000 to 15,000 trees would yield the whole of the tartaric acid used in India.

The chief uses of tartaric acid are in the wine industry, in medicine and in the woollen dye house, also for calico printing, where it is a valuable mordant. It is also used as a substitute for citric acid in the manufacture of lemonade and mineral waters.

The pulp of the East Indian tamarind is said to contain, according to C. Muller, about 11 per cent of tartaric acid, 2 per cent of citric acid, 16 per cent of insoluble matter and 27 per cent of water.

As a commercial proposition the investigators state that, taking the cost of 1,000 lbs of tamarind at Calcutta at Rs 58-12-0 and adding to

this the cost of other materials required for the manufacture of tartaric acid, the total cost of material would come to Rs. 64-7-6 as against Rs. 96-14-0, being the cost of product obtained. On the basis, therefore, that the manufacture is conducted in Calcutta, there would be a balance of about Rs. 30 for 1,000 lbs. of tamarind treated. If 130 tons of tamarind could be treated per month, the investigators estimate that the net profit on a capital of 2 lacs of rupees would be 31 per cent.

*Note.*—Owing to the exceedingly late issuing of the Magazine—which lateness was unavoidable and, we hope, will not recur—the College Notes which we have received are held over that they may be brought up to date. Thus those in next issue will comprehend the work of the term.

